Supporting Staff within Mental Health Services in NHS Greater Glasgow and Clyde to improve Physical Health Outcomes in Service Users: a Needs Assessment

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Health Needs Assessment

The Physical Health Needs of Individuals with Mental Health Conditions

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Aims and Objectives

1. To quantify the burden of physical co-morbidity in users of mental health services within NHS Greater Glasgow and Clyde
2. To explore the views of service users and staff on how physical health needs are currently met and how this might be improved
3. To produce recommendations for training in this area for staff working in mental health services

These aims were underpinned by the following objectives:

1. To undertake a review of academic and grey literature of physical health care in users of mental health services
2. To identify existing data on physical health status of users of mental health services within Scotland and in NHS GG&C
3. To compare these parameters (where possible) with data for the general population, both in NHS GG&C and in Scotland as a whole
4. To elicit the views of service users and frontline staff on delivery of physical health care, and in particular the factors that act as barriers and facilitators to this
5. To use all of the above to produce recommendations to inform training for staff working within mental health services

The overarching aim of this piece of work is to improve health outcomes for users of mental health services.
Policy Context

The poor physical health of patients with severe mental illness (SMI) relative to the general population is gaining increasing prominence as a priority for action. The UK Government policy document ‘No health without mental health’ published in 2011 recognises the interdependence of mental and physical health and sets out a vision for improving health and wellbeing of all individuals with mental health conditions (Department of Health 2011). Among the agreed objectives it sets out is that “more people with mental health problems will have good physical health”, and specific indicators are suggested to monitor whether this is being achieved.

Scotland’s Mental Health Strategy 2012-15 sets out priorities for change in the approach to mental health services in Scotland and highlights Health Improvement for People with severe and enduring mental illness as a key area for action. A specific commitment made to monitoring of physical health in the earlier strategy document ‘Delivering for Mental Health’ is reiterated:

“We will improve the physical health of those with severe and enduring mental illness by ensuring that every such patient where possible and appropriate has a physical health assessment at least once every 15 months.”(1)

This document highlights the need to prioritise equity of access to screening and other preventative services for this patient group in order to achieve parity with health outcomes in the general population.

In NHS Greater Glasgow and Clyde, the Physical Health Care Policy issued in 2014 sets out in detail standards for care, with an emphasis on shared care between primary and psychiatric services, acknowledging that problems often arise due to lack of clarity over roles and responsibilities (2). This policy addresses in detail a range of key areas where action may be required to optimise physical health including access to health promotion interventions, considerations necessary for particular groups and patients receiving particular drug treatments. It also highlights the role of Quality and Outcomes Framework standards in addressing physical health issues within primary care.
Methods

Literature Review

The literature review was carried out in two parts; first a search was carried out to identify any publications that related to both mental health and physical health:

Search strategy

A literature search to identify relevant publications on physical health of patients with mental health conditions was carried out, focusing on publications since 2008. The search strategy was as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Database</th>
<th>Search terms</th>
<th>Limits</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/1/16</td>
<td>OVID</td>
<td>Physical health AND Mental health</td>
<td>Title</td>
<td>253</td>
</tr>
<tr>
<td></td>
<td>Medline 1946 – present</td>
<td></td>
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<td>Embase 1947 – present</td>
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<tr>
<td>19/1/16</td>
<td>PsycINFO</td>
<td>Physical health AND Mental health</td>
<td>Title</td>
<td>992</td>
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Subsequently, a review of data pertaining specifically to the physical health status of service users in NHS GG&C was carried out. This was not identified through a specific literature search but primarily through communications with colleagues working with data accessible through the PsyCIS database. Related material referenced within these sources was accessed where appropriate.

Quantitative needs assessment

Permission was sought from Scottish Government to access data about physical health status and health behaviours collected for the inpatient population within NHS Grater Glasgow and Clyde during the Inpatient Mental Health and Learning Disability Inpatient Bed Census 2016. Patient identifiable data was removed to ensure confidentiality and the resulting dataset was entered into SPSS version 21 for analysis.

Staff training survey

A web-based survey for nursing staff was created using the software tool Webropol Version 2.0. and completed over a three week period in October 2016. The content of the survey was informed by findings from the literature review and sought to establish attitudes towards involvement in physical healthcare by nursing staff and views on priorities for further training. Colleagues with expertise in survey design from the Institute of Health and Wellbeing, University of Glasgow kindly provided advice during development of the survey. The survey template is provided in Appendix 3. Invitations to complete the survey were cascaded to staff by nursing managers. Surveys were completed over a three week period in October 2016. Two reminders were sent out during this period to encourage completion.

Focus groups with service users, carers and staff

A series of focus groups with service users and staff were carried out between August and November 2016.

Service users were accessed with the help of colleagues from ACUMEN, which aims to support wider involvement of patients and carers in shaping mental health services.
Access to staff was obtained at a pre-organised training session the South sector and at a specially arranged event in the West sector. The majority of participants were mental health nurses working in inpatient wards but representation was also present from community psychiatric nurses as well as nursing assistants, peer support workers and medical staff. A range of ward types were represented.

Participants were provided with an information sheet describing the aims of the needs assessment and written consent was obtained for audio recording and use of anonymised comments. Advice regarding the need for ethical approval had previously been sought from colleagues at the West of Scotland Research Ethics Service; as this piece of work is primarily for the purposes of service development ethical approval via the NHS ethics committee was not required.

The first focus group with staff was carried out prior to finalising the format of the web survey in case any major gaps in content were identified.

A topic guide was devised (Appendix 4) for focus groups with service users, drawing on the findings from the literature review. Discussions were allowed to progress naturally, with the topic guide being used as a prompt if any of the areas were not covered spontaneously within the discussion.
Results

Literature Review

<table>
<thead>
<tr>
<th>Key Messages</th>
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<tbody>
<tr>
<td>Life expectancy for individuals with severe mental illness is at least ten years lower than for the general population</td>
</tr>
<tr>
<td>The majority of excess mortality results from cardiovascular disease and respiratory disease and are NOT explained by suicide and self-harm</td>
</tr>
<tr>
<td>The causes of inequalities in health outcomes for individuals with SMI are complex and include illness and medication related factors, organisation of services and pathways of communication between health professionals</td>
</tr>
<tr>
<td>Existing literature suggests that factors that influence the attitude of nursing staff towards involvement in physical healthcare includes training received, support from senior colleagues and staffing levels</td>
</tr>
<tr>
<td>At present, there is limited evidence regarding which interventions are effective in improving physical health outcomes for individuals with SMI</td>
</tr>
<tr>
<td>Individuals with SMI often receive inadequate screening for risk factors compared to the general population</td>
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Part 1

Over the past two decades, the higher incidence of physical morbidity in individuals with a diagnosis of a mental health disorder has become widely acknowledged. In a 2005 review, Connolly and Kelly highlighted the substantial inequalities in the mortality rates of individuals with schizophrenia, who on average die ten years earlier than their contemporaries (Connolly and Kelly 2005). The majority of these deaths are due to physical comorbidities, such as cardiovascular disease, respiratory disease and diabetes. Reasons for this are discussed and include a higher prevalence of modifiable risk factors such as low physical activity and smoking in this population, but also the adverse metabolic effects of atypical antipsychotic medication, which predispose patients to disorders of lipid and glucose metabolism. The need to take a holistic view of health is emphasised, weighing up the advantages in improved psychiatric outcomes against adverse metabolic consequences. The inequities in health promotion approaches for patients with mental illness are also acknowledged; for example, it has been demonstrated that patients with schizophrenia are less likely to be offered smoking cessation interventions. Finally, recommendations are made on how to address physical health needs of psychiatric patients, including specific actions in the form of closer monitoring of metabolic markers but also a move towards better collaborative working with primary and other secondary care practitioners.

A collaborative paper published in 2008 by Scottish Government, Royal College of Psychiatrists, Royal College of General Practitioners and the Royal College of Nursing also summarises the evidence for the association between mental health conditions and poor physical health and makes recommendations on how practice can be improved, including greater awareness among
professionals out with mental health and an increased focus on screening and preventative health services, and removing the barriers to these (3).

A literature search was performed to update these findings (see Methods). Results were screened on title in order to identify the relevant articles for review (n = 35). Quality assessment was performed according to the NICE hierarchy of evidence (4) and is documented in Appendix 1.

The following main themes that emerged from the evidence and which form the structure of this literature review were as follows:

- Evidence for the inequalities in morbidity and mortality experienced by patients with severe mental illness (SMI), and the causes of these inequalities
- Perspective of staff working within mental health services on their role in addressing physical health needs of service users, and the perspective of service users’ on whether their health needs are adequately met
- Evidence for the effectiveness of interventions to improve physical health in individuals experiencing SMI

What inequalities in mortality and morbidity exist for patients with SMI?

Evidence consistently demonstrates inequalities in life expectancy for individuals with SMI; this is often reported as a reduction of ten years but some researchers have suggested it may be as great as 25 years (Tiihonen, Lonnqvist et al. 2009). Furthermore, this gap is increasing and people with SMI are on average dying at a younger age than 30 years ago (Saha, Chant et al. 2007).

Although suicide contributes to excess deaths in this population, the majority of excess deaths are due to physical illness, most commonly cardiovascular or metabolic disease.

**Cardiovascular disease** While cardiovascular disease remains the leading cause of mortality in the general population, accounting for 50% of all deaths, it is higher among those with SMI, accounting for two thirds of all deaths (Bradshaw and Pedley 2012).

**Respiratory disease** Prevalence of Chronic Obstructive Pulmonary Disease (COPD) is higher in individuals with SMI than in the general population with some studies demonstrating prevalence of 25% in individuals with bipolar affective disorder (5). Even when data is adjusted for smoking behaviour the risk of emphysema remains increased. Some of this increased burden of disease may be mediated through passive smoking, hence the recent policy focus on creating a smoke-free environment for all service users.

**Cancers** Evidence of cancer incidence in patients with SMI has been contradictory. Incidence of gastrointestinal and breast cancer has consistently shown to be higher than in the general population, possibly associated with lifestyle factors such as cigarette smoking, poor diet and low levels of physical activity (Robson and Gray 2007). Evidence for rates of lung cancer is inconsistent, with some studies suggesting that incidence is up to twice as high as in the general population but others stating that the incidence is equal or lower. Various hypotheses for lower incidence of lung cancer have been suggested, including death from other causes before lung cancer can develop, or under diagnosis. Still other researchers conclude that incidence of cancer is no greater in the population with SMI but that outcomes are poorer – possibly due to inadequate screening, which leads to detection of cancers at a later stage (Cunningham, Peters et al. 2013).

**Diabetes** The increased prevalence of diabetes in patients with SMI is widely documented (15% versus 5% of the general population) (Robson and Gray 2007). The contribution of modifiable risk factors
(diet and physical activity) is complicated by side effects of medication. 80% of patients who are treated with atypical antipsychotic medication experience significant weight gain; it has also been suggested that this is an underestimate (Cunningham, Peters et al. 2013). Weight gain, in concert with disturbances of glucose and lipid metabolism, sets many patients on the trajectory to development of type 2 diabetes which, if undetected and inadequately treated, contributes to end organ neurological, renal and cardiovascular damage.

**HIV** Prevalence of HIV is higher in those with schizophrenia and mood disorders than in the general population (relative risk 1.8 and 3.8 respectively) (Robson and Gray 2007.). This has significant public health implications as there is an imperative to act to prevent onward transmission by reducing high risk behaviours such as unprotected sexual intercourse as well as needle sharing in individuals who inject drugs. Sexual health has been identified by mental health professionals as an area in which they feel less able to offer screening and advice compared to other areas of physical health.
What are the underlying causes of the excess mortality or morbidity observed in patients with SMI?

The causes of the increased morbidity and mortality in patients with SMI are complex and interlinked. Robson et al categorise reasons as follows (Robson and Gray 2007):

- illness related factors
- health behaviours
- treatment factors
- service related factors

The first three have been introduced in Section 1 but are discussed further here before consideration of service related factors.

Illness related factors, health behaviours and treatment related factors

SMI may be associated with a decrease in health seeking behaviour for a variety of reasons. Physical symptoms may be less prominent as a result of medication, or may simply take lower priority over symptoms related to the patient’s mental illness. Patients with SMI may also be less likely to have supportive family and social networks, which are one of the ‘cues to action’ described in the Health Belief Model and are often a key factor in whether people seek advice for a physical health problem (7).

As previously stated, some behaviours that are harmful to health are more common in patients with SMI. Higher rates of smoking and alcohol and drug misuse are well documented. Weight gain is partly associated with medication (below) but may also be mediated by restricted dietary options for a variety of reasons. Individuals with SMI are less likely to be in employment and are more likely to experience adverse socioeconomic circumstances. Even in urban areas, limited transport through lack of car ownership or feeling unable to use public transport may reduce access to affordable nutritious food (often conceptualised as ‘food deserts’) and be associated with higher consumption of convenience foods containing high levels of fat, salt and sugar (Powell, Slater et al. 2007).

Atypical antipsychotic medications are believed to have greater efficacy and are associated with fewer extrapyramidal side effects, but are associated with adverse effects on BMI and disorders of lipid and glucose metabolism that are precursors to development of type 2 diabetes. This class of drugs is also associated with development of cataracts, sexual dysfunction and poorer dental health, mediated through xerostomia (lack of salivary production) (Cunningham, Peters et al. 2013). In addition, sedative effects are common and further reduce physical activity levels, contributing to weight gain and reduced motivation to seek medical assessment for physical health issues that arise. The weight gain that accompanies antipsychotic use may occur at a relatively slow but consistent rate, and this insidious onset may go unnoticed by both patients and clinician, with no clear point for intervention until a crisis is precipitated by an associated health issue.

Service related factors

Aspects of mental illness may mean that individuals face greater barriers when accessing healthcare than do the general population. In the majority of cases, mental health services remain distinct from primary and other secondary care facilities. Happell et al cite this separation of mental and physical health services as a barrier to achieving good health for a variety of reasons. For one, it may perpetuate the stigma of mental illness. Second, it may result in a siloed approach to patient care with less sharing of information and expertise and access to the multidisciplinary care teams available in other hospital settings where different specialties share staff and facilities (Happell, Scott et al. 2012).
In a separate review, Happell et al describe five stages in the patient journey in accessing health services and the barriers that may occur at each stage for individuals with SMI (Happell, Scott et al. 2012):

1. **Identifying problem and reaching health services**

As discussed above, there may be barriers to even recognising the need to access healthcare. Isolation and lack of peer support may also reduce likelihood of seeking care, as might financial considerations and lack of suitable transport – for example, some individuals with SMI may find using public transport. Sedative effects of medication which may promote daytime somnolence may also contribute. There may also be greater levels of anxiety about the possibility of uncovering an underlying health problem compared with the general population. Finally, previous negative health experiences of health care may discourage contact (previous experience of health care (‘will it do any good?’)).

2. **Arriving at health care**

Arrangements within waiting facilities may be less suitable for individuals with SMI than for the general population; an environment with high levels of noise and activity may be associated with restlessness and discomfort. Some individuals also report a negative attitude (or perceived attitude) from reception staff, who may have received little or no mental health training. This may be why patients with SMI have a proportionately higher level of attendance in Accident and Emergency departments; it is suggested that it is easier to access care in this setting even for issues that could be addressed in primary care, if an appropriate model of care was available.

3. **Consultation with medical services**

A significant contributor to health inequities in patients with SMI is attribution of physical health issues to the patient’s mental illness, a phenomenon described as ‘diagnostic overshadowing’ (Jones, Howard et al. 2008). Even when patients choose to access care within the emergency department they often find themselves ‘displaced’ by emergency staff who focus on mental health issue, even though they may have a legitimate physical problem (Cunningham, Peters et al. 2013). Within mental health settings there is inevitably a reduced focus on physical health. This is undoubtedly in part due to valuing of mental health over physical health outcomes but also due to a lack of resources including adequate time and appropriate equipment. There is also perhaps more consideration given to consumer preference in a setting where the healthcare provider may not fully appreciate or understand the rationale behind a procedure, for example, a mental health professional may be less likely to pursue a blood test to screen for a physical condition where a patient expresses a preference not to have it.

Finally, depressive symptoms have been shown to be associated with low levels of health literacy, which may impact on a patient’s ability to understand and retain information.

4. **Follow-up arrangements**

It has been well documented that individuals with SMI are less likely to be offered access to lifestyle interventions such as smoking cessation or dietary modification programmes. A pre-conceived belief among health professionals that SMI reduces likelihood of compliance has been described; however there is little evidence to support this. In addition, onward referral is less frequent and it has been suggested that for some health professionals there is a reluctance to see patients with SMI due to (largely misplaced) concerns regarding their own safety and that of other patients (Nankivell, Platania-Phung et al. 2013). Service users also describe experiencing receiving a lack of detailed information on health improvement measures, such as weight management, or what referral to secondary care for investigations or procedures would entail.
5. Ongoing care/management of physical illness

A significant barrier to high quality ongoing care that is described is lack of continuity e.g. access to the same GP, and a lack of communication with those providing ongoing care particularly involving roles and responsibilities where psychotropic medication is prescribed on a long term basis. Furthermore, the factors that may serve as a barrier to accessing services in the first instance may also serve as a barrier to re-establishing contact to participate in an ongoing care plan.

What views do staff working within mental health services hold about involvement in addressing the physical health needs of service users?

The effect of mental health services being located separately tends to be compounded by the structure of mental health training which, for nurses, often contains little general nursing component (6). Unsurprisingly, mental health nurses report greater confidence in addressing physical health needs as dependent on previous career experience. Happell et al explored the views of mental health nurses on their role in promoting physical health in their patients (Happell, Scott et al. 2012). Overall, the researchers describe ‘ambivalence’ around the role of mental health nursing staff in delivering physical health care. Whether potential involvement was viewed as positive or negative was dependent on many factors including perceived roles about their own clinical competencies, which were associated with whether or not the respondent had a background in general nursing:

“Looking at people’s cholesterol levels, testing blood sugar levels, all that kind of thing. It’s the standard thing you would do in medical or surgical unit. You can see someone’s unwell. Whereas psych nurses, specifically trained psych nurses, that’s not part of their training. You’d learn it at university, you get the basics of it, but it’s not reinforced when comes time to practice”.

It is also acknowledged that there is a distinction between practical and interpretative skills – for example, feeling equipped to perform a blood test does not necessarily indicate being able to interpret and act on the result (Blythe and White 2012). Terry and Cutter have described evidence to support improved knowledge of physical health needs following short term intensive training, although they are also careful to make a distinction between accumulation of knowledge and development of intervention skills (Terry and Cutter 2013).

Aside from self-perceived competence, willingness to become involved in promoting physical health was affected by whether they viewed themselves as having the authority to intervene in lifestyle factors and, indeed, the effect this had on their ‘reputation’ with their patient group and on their subsequent professional relationship:

““This is not good for you.” They’re not interested in hearing that. Then you’re the bad nurse: “She’s the one who always tells me I can’t have bread and sugar””.

Robson et al explored which characteristics were associated with greater involvement in physical health care in a UK setting and confirmed their a priori hypothesis which was that having attended post-registration training and/or having a general nursing qualification were predictors of a willingness to take on this role. It is noted that only a minority (20%) of respondents described having received any training on physical healthcare provision in the previous 5 years (Robson, Haddad et al. 2013). Some roles were more readily adopted than others; for example providing information on advice on smoking cessation, sexual health and screening uptake were less frequent activities than providing dietary and physical activity advice.

A further key factor affecting attitude to addressing physical health needs was whether nursing staff felt supported by others within their organisation, including medical staff, and whether involvement
was appreciated and formally recognised as an important part of their remit, rather than simply ‘form-filling’. A subsequent study identifies organisational factors - e.g. clearly defined responsibilities, provision for discussion of health status at meetings - rather than nurse-held beliefs or attitudes that are the strongest predictors of readiness to participate in physical health care (Happell, Platania-Phung et al. 2014). It can be extrapolated from this finding that not only is involvement in physical healthcare not necessarily regarded as a worthwhile use of resources but may actually be seen as negative and as detracting from a focus on a practitioner’s main responsibilities. Certainly, the risks of positioning mental health nurses as having a more direct role in physical health care in terms of the potential for excessive workloads and the potential for adverse consequences as a result must be considered. It must be acknowledged that current focus within mental health services is on harm reduction and suicide awareness and mental health practitioners inevitably and necessarily see their priority as ensuring safe practice – that is, observing, recording and responding to severe mental distress. Indeed, risk assessment and management of violence and aggression rather than assessment of physical health are identified by mental health nurses as their most pressing training needs (Blythe and White 2012). Bradshaw et al argue that failure to balance this with due consideration to physical healthcare has exacerbated health inequalities: “the pre-occupation of mental health services with the risk posed by people with SMI to themselves and others has not been mirrored by a similar interest in risks posed to their health and well-being by the treatments we administer to them” (Bradshaw and Pedley 2012). This highlights the need for a policy focus as well as a service focus. For example, the National Confidential Inquiry into Suicide and Homicide has been running since 1996 but no similar inquiry is undertaken into the higher than expected number deaths of individuals with SMI from natural causes. Gray et al argue that the relative lack of importance placed on physical health within mental health services is avoidable and challenge current practice, asking “if every patient can have a suicide risk assessment why can’t they have a physical health risk assessment?” (Gray, Hardy et al. 2009).

Finally, although more has been written about the views of nursing staff in delivering healthcare, a lack of readiness is not confined to this professional group; psychiatrists also report not feeling competent in assessing and providing physical healthcare or feeling up to date about chronic illness. The issue of lack of clarity regarding roles and responsibilities is also described, with an unjustified assumption often made that physical health care is being provided elsewhere (Cunningham, Peters et al. 2013).
What views do service users hold about provision of physical healthcare?

Relatively little has been written regarding the views of service users regarding the adequacy of physical health assessment and provision of care; only relatively recently have the Care Quality Commission in England sought patient views on physical healthcare within mental health settings as part of the regular patient surveys performed (Blythe and White 2012). A 2009 survey of 7500 service users 22% felt that their physical health needs had not been addressed while in a 2011 survey of 17,000 patients 37% reported not being asked about their health and 33% felt they had not received adequate support in addressing their physical health needs. No similar patient experience surveys regarding mental health services in Scotland have been identified.

What evidence exists to support interventions and screening tools designed to improve the physical health of patients with serious mental illness?

Ensuring that patients with SMI receive the same access to physical healthcare as the general population involves several components.

Happell et al carried out a systematic review of interventions intended to improve physical health in individuals diagnosed with mental illness including weight reduction, smoking cessation and strategies to reduce alcohol misuse and promote physical activity (Happell, Davies et al. 2012). Results were encouraging, with the majority demonstrating positive effects on physical health as demonstrated through defined and measurable outcomes, such as reduction in BMI, reduction in carbon monoxide levels. Many of the successful interventions were group-based and delivered by nursing professionals which, if transferrable to other settings, have the potential to reduce impact on available resources.

As described in Section 2, individuals with SMI may display different health seeking behaviours compared to the general population and are less likely to report physical health symptoms (8). Physical health assessment of patients admitted to mental health facilities is often inadequate or omitted completely; a review of inpatient mental health services by the Healthcare Commission in 2008 found that any form of physical examination was documented in only 56% of case notes. Specifically, poorer care for cardiovascular disease and diabetes in contrast to patients without SMI has been documented, with patients 50% less likely to have blood pressure or cholesterol recorded than control groups (9, 10).

Various health assessment tools have been developed to help health professionals to proactively identify underlying physical issues and are summarised in Box 1 (8, 11, 12). Available literature suggests that such tools are acceptable to both service providers and users in terms of ease of use and that they improve consistency in the collection of physical health information (13). There is, however, a lack of evidence regarding whether the use of such tools actually results in improved health outcomes (8). A cluster randomised trial to assess effectiveness of the Health Improvement Profile was due to end in 2014 but has not yet reported findings (14).
### Box 1 Tools to improve physical health assessment in individuals attending mental health services

<table>
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<tr>
<th>Tool</th>
<th>Aims</th>
<th>Content</th>
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| Physical health check | • Able to be used by any mental health professional without need for specific training  
• Short and simple for ease of use  
• Stimulate dialogue between practitioner/service user  
• Identify agreed action points | 27 items covering:  
• Current medication and known illness  
• Current physical symptoms  
• Physical investigations/screening  
• Action plan covering issues identified |
| Health Improvement Profile | • Designed for use by primary care /mental health nurses – aims to bridge gap between primary and secondary care  
• Can be carried out at home if service user unable to attend appointment  
• Flags parameters recorded as green (healthy) or red (action required)  
• Specific training for users recommended | Covers 28 parameters including:  
• Baseline physical measurements (BMI, HR, BP, temperature)  
• Baseline biochemistry (LFTS, lipids, glucose)  
• Questions re. self-checks/screening (testicular exam, breast exam, cervical smear)  
• Health behaviours (smoking/diet/alcohol)  
• Systemic enquiry (vision, bowels etc.) |
| Lester tool           | • Simple framework for identifying and treating cardiovascular and type 2 diabetes risks in patients with psychosis receiving antipsychotic medication  
• Aims to support collaborative practice across disciplines and care settings  
• Supports NICE guidance on management of people experiencing psychosis and schizophrenia | Flow chart tool incorporating the following areas:  
• Smoking and lifestyle  
• BMI  
• BP  
• Glucose  
• Lipids  
Identification of risk factors/positive findings prompt reference to complimentary guidance |

As previously described, there are many potential barriers to the provision of physical health care within mental health services including existing high demands, lack of expertise and ambivalence around roles and responsibilities. It has been suggested that in some settings these challenges may mean that education and training may not be best course forward. Instead, it has been suggested that development of a new role in the form of a cardiometabolic health nurse may be the most appropriate way in which to support medical staff in meeting physical health needs by providing a source of expertise around cardiovascular disease and risk factors while simultaneously reducing the need to train all mental health nurses in physical health care (Happell, Scott et al. 2013). Although a survey of mental health nurses in Australia demonstrated that this possibility was met with generally positive attitudes, concerns were expressed that this model could add to further complexity and fragmentation of services, leading to devolvement of physical assessment and subsequent deskilling of the present workforce. Questions were also raised about whether this model would be in accordance with the preferences of people with mental illness and to what extent they would utilise the role, with the suggestion from some professionals that physical health needs would be better addressed in the context of a well-established trusting relationship.
An alternative to this model is greater integration of existing services. It is acknowledged that the usual split location of primary and mental health services creates further barriers and does not address the social determinants of health (Ungar, Goldman et al. 2013). For many patients who are admitted to mental health in-patient facilities on a long term basis there may be little or no contact with primary care services unless they voice a specific health need. This patient population has fewer advantages compared to long stay patients in other hospital settings, with less access to a core team of multidisciplinary allied health professionals such as physiotherapists and dieticians. Ungar et al advocate a ‘reversed shared care’ approach, where a primary care practitioner spends time addressing needs of patients within a mental health facility and suggest that this would help to facilitate the informal ‘hallway interactions’ that are often key in raising queries or concerns about individual patients and ultimately establishing them on the right referral and care pathway.

In conclusion, the poor health record of individuals with SMI is now recognised as a significant source of inequality that must be addressed at a policy level. Many underlying reasons are described and while some factors are related to patients’ underlying illness, many are due to inadequacies in how services are organised and delivered. A lack of clarity on roles and responsibilities in addressing physical health needs, fragmentation of mental health from other services and inadequate training in physical health care as part of general mental health training are some of the most important issues identified. Although evidence suggests that interventions to improve physical health in patients attending mental health services can be effective, these must be accompanied by a clear commitment from leadership within individual organisations to support staff in delivering these.

Part 2 What is known about the main causes of mortality in users of mental health services in NHS GG&C?

The PsyCIS database records information about all individuals with severe mental illness (SMI) who have had contact with secondary care psychiatric services in Glasgow. It is continually updated and holds information on over 7000 patients, all of whom have a Community Health Index (CHI) number recorded. This enables data linkages to be performed in order to determine health outcomes, including mortality. Several pieces of research have been carried out to date using data recorded on PsyCIS to explore morbidity and mortality patterns in the local population with SMI.

An analysis was carried out to compare cause of death in the 230 individuals who had died between 2006 and 2010 to the population of Glasgow City (15). Deaths from cancer were lower in the SMI group, in keeping with mixed findings in other literature on cancer mortality in individuals with mental illness. Deaths related to alcohol were also lower than for the Glasgow city population, which may reflect overall high levels of alcohol use locally. Conversely, higher mortality associated with respiratory disease was found and is suggestive of increased prevalence of smoking in this group.

The authors also investigated the role of deprivation in mortality and found that death rates were higher across all SIMD quintiles. Of note, when suicide was excluded as a cause of death the impact of deprivation on mortality in those with SMI became more pronounced. For example, the mortality rate in the most deprived quintile was 460.9 per 10 000 for those with SMI compared to 663.3 per 10 000 in the Glasgow population. With suicide excluded, the difference in the death rate in the most deprived cohort of individuals with SMI increased (697.2 per 10 000 compared to 274.7 per 10
000 of the general Glasgow population). This finding is important as it demonstrates that causes other than increased numbers of deaths from suicide contribute to inequality in health outcomes in this the population, and these may be amenable to change through targeted intervention, e.g. support for smoking cessation.

A subsequent analysis of mortality data recorded on PsyCIS by Chiang et al demonstrated that a far higher proportion of individuals had cause of death registered as “R99 – cause of death unascertained” in comparison to a health board rate of 0.5%(16). In order to explore whether having an R99 code assigned to cause of death was associated with differences in standards of care, a comparison was made between recording of various parameters in the case notes of the 14 patients with this code whose details were recorded on the PsyCIS database and 42 patients whose cause of death had been recorded, matched for age and gender. This exercise demonstrated that individuals whose cause of death was unascertained were as likely to have evidence of a physical health assessment in their care plan than the control group (50% v 52%) but that none of the individuals in the R99 group had evidence that the findings of a physical health check had been shared with other health professionals as appropriate and that outstanding actions arising as a result of this had been completed. It is not possible to ascertain from this audit whether this would have altered outcomes but it highlights that a substantial proportion of individuals with SMI have not had a physical health check in the previous year and that this is often not shared where appropriate. The audit also found that a high proportion of deceased patients on the PsyCIS database had problems with alcohol misuse and this finding was significantly associated with death.

**What is known about monitoring of risk factors in service users in NHS GG&C and in the UK?**

Using data-linkage methods, Pearsall et al investigated adequacy of screening for metabolic risk factors (glucose, total cholesterol, HDL cholesterol and HbA1c) of patients with data recorded on PcyCIS(17). They found that 24% of patients had received no blood monitoring in the previous two years, and that younger individuals and those with a diagnosis of schizophrenia were least likely to have received screening. A relatively high proportion (one third) of individuals with elevated blood glucose had no evidence of anti-diabetic therapy and there was particular concern about the low proportion of younger patients with raised cholesterol who were not receiving lipid lowering therapy; this was most pronounced in individuals with more deprived socioeconomic circumstances. This study also ascertained cause of death via linkage to death certification data; in contrast to other evidence from others settings the most common cause of death from natural causes was neoplastic disorders, primarily bronchial carcinoma.

At a national level, performance indicator schemes like the (now superseded) primary care quality and outcomes framework (QOF) aim to reduce inequality in health outcomes through improved monitoring of chronic disease in all eligible patients. However, it was possible to record patients as ‘exceptions’ if they met certain criteria, allowing the practice to exclude them from meeting requirements for QOF and still be able to achieve maximum points and payment. The aim of this is to avoid overtreatment where it will be of no benefit to the patient however it also has the potential to widen inequalities in care. Regular recording of blood pressure and BMI are components of QOF for many chronic illnesses, including mental illness. To explore the frequency of exception reporting, Langan Martin et al compared recording of BMI and blood pressure in individuals with major mental illness compared to those with two other long-term conditions, and diabetes and chronic kidney
They found that exception reporting was higher for individuals with mental illness compared to diabetes or chronic kidney disease, resulting in lower population achievement rates (i.e. proportion of the population who would have been eligible without exception reporting). This proportion was lower in Scotland and Wales than in the rest of the UK. The authors acknowledge that it is not possible to determine the contribution of multi-morbidity on these findings (i.e. patients with mental illness may have had other reasons for meeting exception criteria); however they highlight a concerning gap in the management of mental illness compared to other chronic conditions, and potentially a lack of recognition of the strength of association between mental illness and adverse physical health outcomes.

Results
Key messages

52% of inpatients have at least one long-term condition, with almost 15% having 3 or more

The most common condition is diabetes, followed by chronic pain, coronary heart disease and COPD

37% of inpatients are current smokers compared to 21% in the general Scottish population – but there is variation by ward type, with prevalence of over 90% in some clinical areas

Compared to the general population, this population has a relative risk of coronary heart disease of 1.65 and 2.05 for diabetes

The relative risk of COPD is higher still at 3.63

The Mental Health & Learning Disability Inpatient Bed Census

The Mental Health & Learning Disability Inpatient Bed Census aims to enhance the Scottish Government’s and NHS Scotland’s understanding of mental health, addiction and learning disability services, and of the individuals who use them, with the aim of informing policy development and service planning. The second census was carried out on the 31st March 2016, with a pilot in NHS GG&C in 2014 and a first national census in 2015. For the first time in 2016 information was collected regarding physical comorbidities and lifestyle factors using a suite of yes/no questions about common conditions. The previous round in 2015 collected free text responses only and the requirement to provide both positive and negative responses improved completeness of data capture in the 2016 round.

Permission was granted to access individual patient level data for the NHS GG&C inpatient population and this was provided through a secure online platform. This has allowed the physical health profile of the local service user population to be explored in greater detail, and to be compared with the inpatient population nationally and with the Scottish population as a whole. Of particular interest was the distribution of physical health conditions by ward specialty as this may help to identify training needs of staff working in those clinical areas.

This section of the report contains the following data:

- Demographic data: age, sex and ethnicity profile
- Distribution of patients by ward specialty
- Primary mental health diagnosis
- Number and frequency of physical health conditions
- Frequency of health conditions by ward type
- BMI, alcohol and smoking behaviour and substance misuse in NHS GG&C inpatient population as a whole and by ward specialty
- Comparison of prevalence of physical health conditions and health behaviours with the national inpatient population and with the general Scottish population

Section 1 Demographic information: who are the inpatient population within mental health services in NHS Greater Glasgow and Clyde?
On the day of the census there were 1161 patients in inpatient mental health and learning disability facilities throughout NHS GG&C. Over 95% of patients were resident in NHS GG&C with 40 patients recorded as resident in the state hospital and a handful from other health board areas.

The gender split was 681 male and 480 female with ages ranging from 8 – 98 years, with both a mean and a median age of 55 years. The majority of patients identified as White Scottish; a breakdown of ethnicities is shown in Figure 1.

**Figure 1 Ethnicity of inpatient population**

The distribution of patients by ward type is shown in Figure X. Only a small minority of patients (2.5%) were boarding from another ward but almost all of these patients were boarded to the ward type intended on admission with only one patient who should have been in ‘functional assessment’ boarded in an alternative ward type.

Length of stay (i.e., number of continuous days of admission on the date of the census) ranged between 1 and 14 741 days with an average of 967 days and a median of 189 days.

Figure 2 shows the distribution of patients by ward type, with approximately 40% of patients admitted to acute wards.
Primary psychiatric diagnosis is shown in Figure 3. Schizophrenia and dementia diagnoses account for over half of all admissions with schizophrenia making up 30.9% of diagnoses and all causes of dementia combined making up 22.6%.
How common are physical co-morbidities in the inpatient population within NHS GG&C?

Of the 1161 individuals who were inpatients on the date of the census, 626 (52%) were recorded as having a long-term condition. Figure 4 shows the number of patients who have more than one condition and Figure 5 shows the frequency of the selected conditions recorded during the census. A substantial proportion of patients (14.9%) have 3 or more long term conditions. The most common recorded condition is diabetes, followed by a diagnosis of chronic pain conditions, coronary heart disease and COPD.
Figure 4 Number of recorded comorbidities

Proportion of patients with physical comorbidities

<table>
<thead>
<tr>
<th>no. of recorded physical comorbidities</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>45.8%</td>
</tr>
<tr>
<td>1</td>
<td>23.4%</td>
</tr>
<tr>
<td>2</td>
<td>16.0%</td>
</tr>
<tr>
<td>3</td>
<td>3.0%</td>
</tr>
<tr>
<td>4</td>
<td>3.6%</td>
</tr>
<tr>
<td>5</td>
<td>1.4%</td>
</tr>
<tr>
<td>6</td>
<td>0.6%</td>
</tr>
<tr>
<td>7</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
Figures 6–21 show the proportion of patients, male and female combined, who were inpatients on the day of the census with each recorded physical diagnosis, displayed by ward type, Figures 22-27 show prevalence of obesity, smoking and alcohol and substance misuse and Figure 28 compares prevalence of recorded conditions with the national census data and with prevalence in the general Scottish population.

The purpose of tabulating the data in this way is two-fold. First, it provides supporting evidence regarding the prevalence of conditions that would be anticipated to particularly affect patients in different specialist wards. This identifies these areas as of particular importance for staff training in these areas. Second, it allows identification of any conditions where prevalence exceeds that which might be anticipated in a defined patient population. This requires consideration of the prevalence of these conditions in the context of the national population of inpatient users of mental health services, and also in the context of the general population.
Prevalence of conditions by ward type

Considering the first objective, as anticipated many of the conditions that are associated with ageing are most prevalent in the dementia wards. These include coronary heart disease, stroke and TIA, thyroid disorders and previous cancer diagnosis. Similarly, liver disease is seen predominantly in addiction wards. Notable findings are a particularly high proportion of patients with COPD (14.4%) in the continuing care/long stay wards. Interestingly, this was not reflective of it being the ward with the highest proportion of smokers. For example, the proportion of smokers in IPCU was 73.9% yet there are no patients recorded as having a diagnosis of COPD in this ward type. It is likely that this reflects the differences in age distribution between different ward types (mean age in continuing care long stay 66.6 years compared to 36.4 years in IPCU) and highlights the opportunities that exist in actively promoting smoking cessation in clinical areas where prevalence is high in order to prevent long term health effects. Similarly, hypertension (which was recorded whether treated or untreated) was common in wards with relatively low levels of coronary heart disease and stroke, demonstrating the importance of intervening at an early stage in the disease process.

A further notable finding is the high prevalence of diabetes in the forensic wards (18.3%). This is in keeping with a particularly high proportion of patients who are obese in this ward type (21.6%) and again highlights a particular need to promote weight reduction strategies in this patient group.

The proportion of patients in dementia and continuing care wards recorded as having a chronic pain diagnosis was relatively high at 27.3% and 20.7%. This term incorporates a wide range of diagnoses and highlights the challenges facing nursing and medical staff in managing a diverse range of conditions in patients with long durations of stay in mental health facilities. Similarly, a fifth of patients in continuing care wards were recorded as having a form of sensory impairment. Again, this represents a challenge for staff working in these areas who may have relatively little training to address these needs compared to staff working with patients with learning disabilities.

Finally, constipation is highlighted as a concern for a substantial proportion of patients. The significance of this as a risk factor for serious adverse clinical outcomes is now recognised, particularly in relation to patients receiving clozapine therapy (19).

When drawing inferences from the data the relatively small number of patients in each ward type must be considered. For example, the proportion of patients in perinatal ward with chronic kidney disease (18.2%) is actually reflective of there being one patient with this diagnosis of only 6 admitted at the time of the census. This can be seen by reference to Figure 2 which shows the distribution of patients across each ward type.
<table>
<thead>
<tr>
<th>Figure 13. % of patients with epilepsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>3.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure 14. % of patients with acquired brain injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>2.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure 15. % of patients with Parkinson's Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>0.8</td>
</tr>
</tbody>
</table>
Figure 16. % of patients with thyroid disease

Figure 17. % of patients with liver disease

Figure 18. % of patients with previous cancer diagnosis
Figure 19. % of patients with chronic kidney disease

Figure 20. % of patients with sensory impairment

Figure 21. % of patients with constipation
BMI and smoking, alcohol and substance misuse

Figure X shows the distribution of BMI throughout the inpatient population. Figure 22 shows the proportion of patients with BMI greater than 30 by ward type.

Figure 22 Distribution of BMI in inpatient population
Figure 24 shows the proportion of patients who are current smokers and who have a history of alcohol and/or substance misuse and figures 25-27 show prevalence of these behaviours by ward type. Data on alcohol and substance misuse is perhaps of limited value as only behaviour during the previous four weeks is recorded. This means that responses are not indicative of the usual behaviour of patients with longer stays. Of note however is the high proportion of patients in acute wards who report harmful use of alcohol (57%) or other substances (43%) in the month prior to admission. Although it is likely that in many cases alcohol and substance misuse represents a maladaptive coping response to mental health symptoms, it must also be considered that a proportion of admissions are directly attributable to substance misuse. This highlights the burden that alcohol places on acute services and the importance of ongoing harm reduction strategies in this area.

The high prevalence of smoking – which is in excess of 90% in rehabilitation wards – provides clear evidence for the need to continue to address this as a priority for action.
Figure 24. Smoking, alcohol and substance misuse

<table>
<thead>
<tr>
<th></th>
<th>Smoker</th>
<th>Alcohol dependence or harmful use</th>
<th>Substance misuse</th>
<th>Alcohol and substance misuse</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37.7</td>
<td>9.6</td>
<td>7.6</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Figure 25. % of patients who are current smokers

<table>
<thead>
<tr>
<th>Department</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>44.8</td>
</tr>
<tr>
<td>IPCU</td>
<td>73.9</td>
</tr>
<tr>
<td>Rehab (non-addiction)</td>
<td>69.2</td>
</tr>
<tr>
<td>Addiction (rehab)</td>
<td>92.9</td>
</tr>
<tr>
<td>Addiction (detox)</td>
<td>50.0</td>
</tr>
<tr>
<td>Continuing care/long stay</td>
<td>36.9</td>
</tr>
<tr>
<td>Perinatal</td>
<td>16.7</td>
</tr>
<tr>
<td>Forensic (non-LD)</td>
<td>22.5</td>
</tr>
<tr>
<td>Forensic (LD)</td>
<td>10.5</td>
</tr>
<tr>
<td>Dementia care</td>
<td>0.0</td>
</tr>
<tr>
<td>Dementia assessment</td>
<td>0.0</td>
</tr>
<tr>
<td>Dementia care</td>
<td>0.0</td>
</tr>
<tr>
<td>Dementia care</td>
<td>0.0</td>
</tr>
<tr>
<td>Children’s unit</td>
<td>8.3</td>
</tr>
<tr>
<td>Learning disability (non-...)</td>
<td>25.0</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Figure 26. % of patients with harmful alcohol use in previous 4 weeks

<table>
<thead>
<tr>
<th>Department</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>57.0</td>
</tr>
<tr>
<td>IPCU</td>
<td>5.0</td>
</tr>
<tr>
<td>Rehab (non-addiction)</td>
<td>8.0</td>
</tr>
<tr>
<td>Addiction (rehab)</td>
<td>6.0</td>
</tr>
<tr>
<td>Addiction (detox)</td>
<td>3.0</td>
</tr>
<tr>
<td>Continuing care/long stay</td>
<td>7.0</td>
</tr>
<tr>
<td>Perinatal</td>
<td>0.0</td>
</tr>
<tr>
<td>Forensic (non-LD)</td>
<td>9.0</td>
</tr>
<tr>
<td>Forensic (LD)</td>
<td>2.0</td>
</tr>
<tr>
<td>Dementia care</td>
<td>11.0</td>
</tr>
<tr>
<td>Dementia assessment</td>
<td>0.0</td>
</tr>
<tr>
<td>Dementia care</td>
<td>0.0</td>
</tr>
<tr>
<td>Children’s unit</td>
<td>0.0</td>
</tr>
<tr>
<td>Learning disability (non-...)</td>
<td>3.0</td>
</tr>
<tr>
<td>Other</td>
<td>6.0</td>
</tr>
</tbody>
</table>
Figure 28 compares the prevalence of the recorded conditions with that of the inpatient population of the rest of Scotland collected based on the data collected during the census, and with that best estimates available for the Scottish population as a whole. The associated data table and sources are available as Appendix 4. Consideration must of course be given to the differences in age and sex profiles of these populations when making inferences. Figures 29 and 30 show population pyramids for the Scottish population and for the inpatient population of NHS GG&C. The most notable differences are overrepresentation of males compared to females and unsurprisingly of a far lower proportion of children. Otherwise, there are similarities in the age profiles, with peaks at 50 and 70 in both populations. The population is nonetheless skewed in the direction of older age groups; 37% are over 65 compared to 20% of the population described as ‘pensionable age’ in the 2015 census (65 for men and 62 and 238 days for women)(20).

As may be expected, the values for the inpatient population of NHS GGG&C are similar to those for inpatients in Scotland as a whole. Prevalence of smoking is slightly higher for the population of NHS GGG&C than the overall Scottish inpatient population while the proportion of patients who are overweight or obese is lower. Alcohol and substance misuse is also reported as lower in NHS GG&C. Otherwise, there are no remarkable differences between the populations locally and nationally.

Individuals included in the census are more likely to have at least one long term condition compared to the general population (53 versus 39%). All recorded conditions are more prevalent in the inpatient population with the exception of a ‘chronic pain’ diagnosis. Most notable findings are the proportion of patients who have diabetes (12.3%), which is twice that of the general population and of the proportion of patients with COPD (6.9%) which is over three times higher than in the general population.
Figure 28. Comparison with national inpatient and general populations
Figure 29. Population pyramid of Scotland 2016

Figure 30. Population pyramid of inpatient population of NHS GG&C
Strengths and limitations of this approach

Although in many forms of health research being in hospital would be associated with comorbid conditions, due to separate locations of mental and physical health services there would be no reason to expect that being in a mental health inpatient facility should itself be an indicator of poor physical health. In fact the focus group work carried out as part of this needs assessment demonstrated that there is a low threshold for transferring patients to a general facility when there are any concerns about physical deterioration. It is reasonable therefore to draw conclusions about prevalence of physical health conditions without hospitalisation in itself being a confounding factor.

The number of patients who were boarding from other wards was negligible; therefore conclusions drawn about the prevalence of physical health conditions in those wards are likely to be applicable in the longer term.

The data presented here has not been standardised for age, sex or socioeconomic status and it is of course likely that the inpatient population differs from the general population in ways that may be associated with a higher incidence of physical illness. The purpose of this report however is to inform staff training content rather than to determine the causes of illness and this limitation does not impact on this. It is important nonetheless to consider this when attempting to use the data to draw conclusions about the relative health of users of mental health services compared to the general population. Individual patient level information is available for age, sex and postcode therefore it would be possible to produce standardised rates where this is of interest.

Finally, it must be borne in mind that the number of patients in each ward type is relatively small, particularly in non-acute wards. This therefore limits the reliability of how generalizable these findings are.
Section  Stakeholder views

Results of staff survey

Key messages

Nursing staff report feeling most confident in providing advice about healthy eating and physical activity but know where to signpost patients for advice about other health issues.

Staffing levels impact on ability to address physical health needs, and in particular the ability to accompany inpatients to specialist services.

Side effects of psychotropic medication, cancer screening and sexual and reproductive health are identified as priorities for staff training.

161 members of nursing staff submitted a completed survey, a response rate of only 8%, however this figure presumes that all nursing managers distributed the survey to staff as requested, therefore the true response is likely to be higher. The survey consisted of three sections, designed to collect quantitative data on the following:

- Current involvement of nursing staff in meeting physical health needs of service users
- Views on barriers and facilitators
- Priorities for future training

A final section recorded free text comments and has been analysed using qualitative methodology.

The survey template is attached in Appendix X.

Characteristics of respondents

Age and gender break down of respondents are displayed in Figures 1 and 2 below.

Figure 1 Gender of respondents

- Male
- Female

117
43
Figure 3 shows the number of years since qualifying, with the largest proportion of respondents having worked in mental health services for over 20 years. Almost all of the respondents worked in Band 5, 6 or 7 posts (Figure 4).

Two thirds of respondents worked primarily in the community with the remainder based in inpatient facilities and across this there was a fairly equally distributed divide across general and older adult, child and adolescent and addiction psychiatry, with a smaller number based in learning disability (Figures 5 and 6). None of the respondents worked primarily in forensic services. Note that community was included as an option for this question also but has been removed from the analysis, which accounts for the smaller number of total responses.
Involvement in physical healthcare

The first section of the survey collected responses on which areas of physical healthcare staff were regularly involved in, how confident they felt about this and level of knowledge about how to refer patients to further services when necessary.
Promoting healthy behaviour

The most common activities that staff participated in regularly (defined as once a month or more) were discussion surrounding the benefits of participating in physical activity (88%) and of maintaining a healthy diet (85%). The vast majority of staff felt confident in providing dietary advice (96%) and in referring patients for specialist advice if required (89%). For physical activity there was slightly lower confidence in providing advice (88%) and specialist referral (80%).

Smoking, alcohol and recreational drug use were discussed less frequently. Only 54% of staff reported discussing smoking cessation on a regular basis, although this may reflect a reduction in smoking behaviour in the population. 78% of respondents felt confident in discussing smoking cessation and 85% were aware of how to refer to smoking cessation services.

Alcohol-related harm and recreational drug use were discussed more frequently (64% and 57% respectively). There was greater confidence in discussing alcohol-related harm (88%) than recreational drug use (76%) but knowledge about how to refer patients for specialist advice was high for both (93% and 90%).

Sexual health was discussed regularly by 37% of respondents although 66% of respondents reported that they felt confident I doing so and 81% knew how to refer patients for specialist advice when required. Similarly for contraception, only 27% regularly discussed this with patients but 59% reported feeling confident in doing so and 83% knew how to refer patients for specialist advice on contraception when required.

Side-effects of prescribed medication

The effects of prescribed medication was flagged as a particular area of concern by service users, carers and staff in focus group sessions and therefore a specific question was included to explore knowledge and how frequently this translated into regular discussions with patients.
The majority of respondents did report feeling that they had adequate knowledge and confidence levels regarding side-effects of prescribed medication, and the majority did report that they discussed this regularly with patients, although this proportion was lower.

**Monitoring of blood pressure and glucose**

Blood pressure monitoring was performed regularly by 71% of respondents, and respondents were almost universally confident in their ability to perform this task, recognise abnormalities and take appropriate action (> 99%). Blood glucose monitoring was performed far less frequently (33%) and associated with lower levels of confidence in doing so (71%), ability to recognise abnormalities (75%) and take appropriate action (78%).
Cancer screening

Figure 10 Awareness of cancer screening programmes

Only 20% of respondents regularly discussed the importance of cancer screening with patients. 57% knew about eligibility criteria for current national screening programmes but only 47% felt confident in discussing these. Knowledge on how to advise on self-breast and testicular examination was relatively low (36% and 32%).

Facilitators and barriers

This section explored attitudes of staff to the factors identified within the literature review and initial focus groups as potential barriers and facilitators to providing physical healthcare. Respondents were provided with two extreme statements and asked to indicate their view using a numbered scale (see Appendix X), 1 indicating full agreement with the extreme negative statement and 10 with the extreme positive one. Overall rankings have been calculated and are presented here in order to create a barometer that helps build a picture of which issues are most important for staff. The closer to 10 the summary figure is, the more positive the respondents’ view of this factor.

Eight of the 14 factors received a score of 7.5 or above (i.e., overall opinion of respondents was in support of the positive statement), although there was variation within these responses. For example for 15 respondents ‘ability to find a suitable place to perform a physical examination’ was scored most negatively, highlighting this as an important issue for a sizeable minority of staff, even though for most this was not indicated to be problematic (Figure 11).
Performing physical examination

Figure 11 Examining patients

Organising specialist referral

The most negative scores (between 5 and 6) were in relation to practical considerations when arranging transport for patients who require to attend outpatient appointments and availability of staff to act as chaperones to accompany them. This is in keeping with the other factor that scored less than 6; impact of workload on ability to keep up to date with physical health care. These factors are closely related to staffing levels, which were raised as a key concern in staff focus groups.

Figure 12 Organising referral
Support from colleagues

Support from colleagues scored highly, although again it should be noted that there was a good deal of variation within the pattern of responses. For example, for availability of medical staff, although the majority of respondents scored this very highly, over a quarter scored this as 5 or below, indicating that for some staff this is an important barrier. Responses were more consistently positive about physical healthcare being viewed as a priority by senior colleagues, clarity about their own role in providing physical healthcare and there being sufficient expertise within their team of nursing colleagues to meet healthcare needs.

Ensuring patient safety and quality care

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Ensuring patient safety and quality care

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Feeling that involvement in physical healthcare had the capacity to impact negatively on relationship with patients or on other aspects of patient care was not indicated to be of high concern. Similarly, concern about making a mistake when participating in healthcare was not an area of high concern for most, with 62% scoring this as 8, 9 or 10 (i.e. in support of the most positive statement), however again it is important to consider the views of the 32 staff members (20% of respondents) who scored this statement as 5 or below.

Training needs

In this section, participants were asked to rank ten potential areas of staff training according to preference in order to identify priorities.

Ranking of preferences, expressed as the inverse of the average overall value assigned by respondents, was as follows:

*Figure 15 Priorities for training as expressed by nursing staff*

- Side-effects of prescribed medication
- Cancer screening
- Sexual health and contraception
- Blood glucose monitoring
- Recreational drug use
- Physical activity
- Healthy diet
- Alcohol-related harm
- Smoking cessation
- Blood pressure monitoring

Interestingly, the area identified as of highest priority for further training was side-effects of prescribed medication. This was consistently raised as an area of high concern by both staff and service users in focus groups, although the majority reported having adequate knowledge in this area in section 1. The identification of cancer screening and sexual health/contraception as priorities was more consistent with the responses in the earlier section.
Section 2 Focus groups with service users and staff

Key messages

Diagnostic overshadowing remains an important source of inequality for individuals with SMI both in primary and secondary care settings.

There is a large amount of need identified regarding ongoing care plans for individuals returning to mental health facilities following management of acute medical issues.

Some mental health nursing staff express a desire for greater emphasis on practical management of physical health problems as part of undergraduate training.

Some nursing staff express concerns about changes in the structure of medical training, which means that patients often require transfer to address relatively minor physical health concerns.

There is a need to recognise the importance of maintaining independence in activities of daily living in optimising physical and mental wellbeing, as well as more intensive physical activity.

A number of key themes emerged from the focus groups that were carried out with service users and staff. Many of these overlapped and have been broadly grouped into six areas:

- Illness-related barriers
- Medication – prescribing and side effects
- Diagnostic overshadowing
- Interface between mental health and medical care
- Training pathways of medical and nursing staff
- Impact of staffing levels on physical health

There was acknowledgement that several factors associated with some forms of mental illness may act as barriers to healthy behaviour. One of these was poor motivation to be physically active, which may be in part due to symptoms associated with the illness itself and in part due to side effects of psychotropic medication:

“The trouble with people with mental illness is you’ve got to motivate them to do things, I mean they don’t always want to go for a walk or do physical exercise, especially if they’re ill... say they’ve just been put on clozapine, they’re maybe sleeping most of the day because
it’s quite a heavy sedation to some people and then exercise, they’re maybe not motivated to tidy their room never mind go for a walk... when he was ill he didn’t (go for a walk), they’re frightened... to go out of their room, they’re frightened overnight if you’re not there, they need constant reassurance, they need someone to take them and it’s not always easy, the parent could be the person they’ve got paranoia about…”

(Carer 1)

The same carer noted that the often short-term nature of appointments throughout the health service and third sector organisations can be particularly disruptive for individuals with mental illness, and that there is a requirement for service providers to have sight of this:

“He had a good relationship with a wee chap that used to come on a Friday, he was a friend to him. He even had his mobile phone number... but he got put on something else. At one point he was deemed to be getting better but then this girl came... she tried to force him to do things he didn’t like and he said ‘no way’ and she said well I’ll just withdraw your service then... we can’t be coming to people that don’t need us.” So his service was withdrawn and (my son) started to get worse and I saw him starting to get paranoid. The people that take him out now, they’re not trained, but they’re good and they take him out for a walk. So he’s getting the help he needs now. But it wasn’t easy”.

(Carer 1)

A further observation, echoing themes identified within the literature review, is that the physical environment in reception areas within healthcare settings are often challenging for individuals experiencing acute episodes of mental illness.

“It can be off putting, just the sheer numbers of people, whether they’re saying anything or not. Especially if you’ve spent a couple of days in the house, you’re trying to give yourself a kick-start. Especially if you’ve not seen the doctor for a while too. Not many places you go you’ve got 20 or 30 people all sitting in the one place”.

(Service user 1)

Another service user reported encountering reluctance on the part of a newly assigned GP to prescribe a longstanding medication used for joint pain due to concerns about the potential for dependence. This resulted in a perceived inequity of care of individuals with and without mental illness:

“The doctor had taken me off my pain medication. I’ve got arthritis in my knees and in the small of my back and it is more aggravating than anything because I can’t do what I want to do. I like gardening and that means going down and up on your knees and he wasn’t going to give me pain medication and I said “But I was on a high dosage before you took me on, before my other doctor retired... I was on that for years”. “No, no, you can get addicted to them”... so he’s given me tramadol and I’m taking them. I don’t think they’re as good but I
can’t face going back and arguing the case with him again. I very irregularly go to the GP, maybe once a year if I’ve got to”.

(Service user 2)

A further consideration that was raised by staff was the potential for conflict, and for unintended consequences, when addressing the potential for adverse physical consequences in a patient group who may have no or limited insight into the need for compliance with prescribed medication:

“It can be really sensitive for our patient group. Because they’re already feeling that medication is maybe something they don’t need. And they see some of the side effects that it’s causing them, whether it’s their motivation, whether it’s the weight gain, whatever”.

(Community Psychiatric Nurse)

A further perceived inequity resulted from concerns about interactions of commonly prescribed medication with psychotropic agents, albeit with the intention of maintaining stability of mental illness. For example, one service user had encountered reluctance to prescribe treatment for symptomatic relief of distressing vasomotor symptoms associated with menopause due to concerns about the impact on her antidepressant medication:

“He has said – I could give you something for it but it might affect the other tablets…. he just thinks the depression is the priority, they just think the depression needs to be under control. Which I did understand, but I’m coming up for two years now”.

(Service user 3)

Several service users expressed concern regarding the adequacy of explanation surrounding potential side effects of prescribed medication:

“I know there are leaflets there but I think it would be better if the doctor sat down... because some people don’t really read the leaflets, they’ll just take the tablets because the doctor tells them. If they were to say, look some of the side effects are... just look out for them. That would make life so much easier”.

(Service user 3)

Other service users felt they had experienced a dismissive attitude to side effects of medication that, although relatively minor, could be distressing for the individual and their carers:

“Olanzapine’s the only thing that works for him but it’s constipating. We’ve got to keep getting him to drink apple juice. It’s hard getting him to do what he should do. They don’t really do much on the physical side – they just say nonsense, try and get him to eat apples, but it’s not easy, he’ll not eat fruit”.

(Carer 1)

Diagnostic overshadowing, which describes the incorrect attribution of physical symptoms to an individual’s mental illness, was a concern for both service users and staff. One service user
described feeling that any health concern that she presented with was attributed to her diagnosis of depression:

“I think any time you go, my personal opinion is he puts it down to depression. I’m feeling like this, I’m feeling like that; it’s the depression. And I’m thinking, but really, is it definitely my depression? You know, these symptoms, how I’m feeling, anything I’ve got.”

(Service user 3)

For this particular patient, this perception was associated with a particularly traumatic event that had occurred in the previous year:

“About a year ago I kept complaining about a sore stomach and I had a really bad tummy and I kept going back and saying I’m constipated and I’ve got diarrhoea, I’ve got a lot of pain... “Oh, that’ll be off the tablets”, that’s what he says. And I took really unwell in March, I collapsed in the bathroom – it was my gallbladder. So I ended up getting rushed into hospital and the gallbladder had to come out they said if you’d left it 24 hours you’d have died... so that frightened me that I had been going in for a while, for about six months, but he kept saying it was to do with the tablets...”

(Service user 3)

Diagnostic overshadowing was not confined to community settings but also noted to occur frequently in hospital settings, as identified by mental health staff:

“There was a patient admitted here at the weekend who’d had a stroke two weeks previously and just because they’d... got a psychiatric history, even though she had more symptoms, she didn’t have a repeat CT head, which was quite shocking”

(General Practice Trainee 1)

“(There is) a large amount within health professions of stigma against people with mental illness. I mean I think over the years I see that still, unfortunately, consistently the diagnosis of mental illness is seen as the primary one and not following the same pathway and consistency of management of physical health problems. I think there’s good evidence that if you’ve got hypertension, if you’ve got schizophrenia you’re less likely to have your hypertension diagnosed and even when you get your hypertension diagnosed you don’t always get offered the same treatment”.

(Consultant psychiatrist)

Positive views were expressed regarding the readiness of nursing staff to seek advice for physical health concerns that presented within a mental health care setting.

“You’ve always got a doctor about who can double check things for you and I think everybody knows when somebody’s becoming unwell what we should be doing.”

(Nursing assistant)
Similarly, there was a perception among nursing staff that medical staff are willing to seek further advice from colleagues within secondary care where necessary, and there was no apparent perception that this was particularly problematic to access:

“Most of the staff will seek support from the general hospital anyway, if they’re not sure they’ll phone the consultant in charge, say for orthopaedics or whatever, they’ll phone over and take advice from them, they’re quite good at doing that, if they don’t feel supported they’ll look for support somewhere. They’ll phone A&E and they’ll speak to whoever they need to speak to, whatever they think’s wrong with the patient and they’ll advise them. That’s my experience with doctors anyway, if they don’t know they’ll just phone”.

(Staff nurse 1)

However, although there was little concern expressed over willingness of staff to refer, or willingness of secondary care to admit patients, there was a great deal of concern over the efficiency of this process. Based on the experiences of several staff members, a picture emerged of patients being transferred to hospital for short episodes of acute care before being rapidly transferred back to mental health care facilities, often into the care of staff who felt that they had insufficient experience to manage what are often complex needs:

“Sometimes you’re getting patients sent up from A&E to the ward where it’s clear when the duty doctor here sees them that they’re not medically fit to be here, they really should be in a medical bed in the Queen Elizabeth for example but again they see, here’s a mental health problem, we’ve had a quick look at this patient, let’s get them off to (Name of mental health facility)... that assumption is made that ‘it’s ok they’re in hospital, well just send them back there’ when actually it's way earlier than it should be.

(Community Psychiatric Nurse)

“It’s a push to get them back to ourselves as well, you’ll get your patients back and they’re still unwell, they’re going back and forth.”

(Nursing assistant)

“Days later, they’re back over again... it is a concern when you get the patients sent over and you know that their physical health is worse, at that present time it’s overriding their mental health issues, and you’re still getting them sent back. And then you maybe send them back a couple of days later to the Queen Elizabeth, that happens a lot. They basically see the mental health thing and pull the patient back over too early.”

(Staff nurse 2)

“A lot of the time they do send them back too early and it’s because as they say they’re in a ‘place of safety.’”

(Staff Nurse 3)
One member of nursing staff elaborated on a particular experience where what she felt to be premature transfer and inadequate follow up may have been related to an adverse outcome for one service user:

“We had a patient that had to keep going to the Queen Elizabeth for an infection in her toe, she had diabetes and because she was quite unmanageable at times and quite demanding and needing attention, they kept sending her back too soon. And what happened in the end was that she wasn’t looking after the toe. It wasn’t getting cleaned, it was getting infected. She was in a way kind of self-harming by just not looking after herself. And if she hadn’t been in the hospital, in a proper general hospital where its cleaner, she’s confined to her room which is cleaned regularly and the wounds dressed by the nurses that are general nurses and know what signs to look for, know what’s happening, it probably could have been managed a lot better. In the end she’s ended up having to get her leg amputated. I know it could have just happened anyway but it’s that kind of ‘what if?’ And we kind of felt it was like ‘you can take her now, you can take her now’, when really they should have kept her in for a lot longer’”...

...we weren’t given any real advice, I think it would have helped if a nurse from that place had come in and given us a bit of an education as to what to be doing and what to be looking out for. Sometimes it could be a different dressing would be more appropriate and they don’t give much advice at all, usually you’d have to get a podiatrist in another day and you’re waiting three or four days to see them. (Having someone to say) “here’s what you need, and... if it looks like this ring us for advice”, that kind of thing”.

(Staff nurse 4)

This highlighted what was felt to be a lack of understanding on the part of medical colleagues of the type of skills that are readily available within a mental health setting:

“And I suppose, it’s one thing, general hospitals have this kind of assumption that because we’re a hospital we’re able to do all the same stuff as they can do but were a psychiatric hospital so that’s a set of completely different skills. I mean the consultants will quite happily tell you that... they’re relying on their juniors for advice on physical healthcare stuff”.

(Staff nurse 5)

There appears to be, therefore, a clear appetite for more comprehensive handover and follow up arrangements for patients with ongoing medical issues that are readmitted to mental health care facilities, but no concerns that staff within mental health services are unwilling to escalate physical health concerns where appropriate. On the contrary, and less positively, an increasing focus on physical health was felt to be associated with what is perceived to be sometimes excessive investigation by an increasingly risk averse medical community. In particular, the recent introduction of MEWS (medical early warning system) scoring in Older Adult wards had been felt to generate unnecessary anxiety in some cases:

“My experience in older people’s mental health is they come in with complex physical needs to start with so obviously your screening process will pick them up like your bloods, CXRs, ECGs, we also have got the MEWS charts in the wards that we’re piloting at the moment so
they highlight quite a lot of problems as well physically, depending what they score they’re getting a different kind of coloured code, depending on that code tells you what treatment should be done. But as X says, sometimes we find the doctors a bit overkill in some of the situations because they’ve had these complex medical needs for 20 years and all of a sudden they score quite high on the MEWS chart and the doctor’s like, “Quick, straight over to the Queen Elizabeth!” But they’re not actually acutely unwell at that point because their physical observations and ECG are showing that they’re all right.

Initially with the MEWS coming in it caused a lot of stress, because the doctors were coming in and sending three or four patients a shift over to the Queen Elizabeth which is totally unacceptable because you don’t have the staff to escort them so patients were going over on their own and getting into problems over there. We were getting staff over there phoning back because they weren’t understanding that we couldn’t just magic staff out the blue to take a patient. I mean literally, one day it was three within an hour, the patient wasn’t actually unwell but what the chart said was they were, so they had to go over to the Queen Elizabeth for tests and scans and things, just to be sent back again and you’re like ‘what was the point of that really?’”

(Staff nurse 1)

Related to this was concern from senior nursing staff about the changing structure of medical training which contributed to the need for transferring patients to hospital, sometimes for management of relatively minor procedures:

“I think... it’s basic things that we have an issue with, or I certainly have an issue with, and one of the things being for some unknown reason with the way the medics are doing their training just now, if somebody... has a fall, has a graze or a cut we would have to send that person to the Queen Elizabeth because the medic here can’t stitch... you can have somebody who can detain somebody under the Mental Health Act, but they can’t put a stitch in, that to me is... strange. Because in a Care of the Elderly ward, say you have three or four people that have a wee slip, somebody has a wee cut there, a wee cut here or whatever, you could be transporting people all over the place for the sake of someone who can’t stitch. So it’s... small changes, like the way the medics have been trained, because... medics always came here with the ability to stitch, something as basic as that leaves but they can take somebody’s rights off them. That can be quite difficult”.

(Staff nurse 6)

This prompted discussion with another staff member who also recalled that, previously, minor injuries arising on the ward were often managed without the need for transfer to a main hospital:

“Because years ago it was all done on site. We’d suture kits on the ward and the doctors came and they dealt with all that in the ward”.

(Staff nurse 1)
“But now the overkill would be, say it’s someone’s head, well you can’t just suture them because “what if they’ve got a concussion?” Well, they don’t look as if they’re in concussion…”

(Staff nurse 6)

“… their neuro obs are fine”.

(Staff nurse 1)

Where need for advice or care fell out with the expertise of mental health staff, easy access to specialist services was viewed as valuable. For example, recognition was given to ease of accessing sexual and reproductive health advice at the Sandyford clinics:

“Certainly whenever I’ve had discussions like that when it’s out with my breadth we’ve spoken to medical colleagues and had them referred on to a place like Sandyford”.

(Community Psychiatric Nurse)

“Sandyford has always felt very accessible as a service. It’s comfortable to attend there, and flexible”.

(Consultant psychiatrist)

Unfortunately not all specialist services are found to be as easy to access. The process for accessing the tissue viability service was reported to be overly complicated, with staff unavailable to have confidence that referral would result in timely review:

“It’s a big protracted process, you used to just be able to email them, now it’s an email form you’ve got to put in, you can’t phone them anymore, you can’t send a paper referral... it’s a big palaver and then it goes into cyber space for weeks before you hear anything, before they actually come back and say “we will come out and see the patient but we can’t come out for so many weeks or whatever.” And then they come out and there’s never any follow up for some reason; you used to have follow up... a week later, but now they just come out and say ‘that’s it, just do that and that’s fine. Any problems and re-referr them through the whole process again.” So the re-referral processes that are in place as well are kind of hindering things a bit. But we do have link nurses as well on the wards for tissue viability and certain things, but they go on training maybe one, two days and that’s the end of it, there’s never any follow up and it kind of falls by the wayside again. That’s my experience”.

(Staff nurse 1)

In addition to some negative perceptions of the way that medical training has changed, concerns in training pathways for nursing staff within mental health were also expressed:

“Student training, I think there’s more of a need there, I qualified five years ago and we didn’t have a massive amount of physical healthcare. We had the basics and it was done one particular part of our training course and that it... I think there could be more time spent
when students are coming through so that they've got a bigger awareness of the importance, particularly with our mental health patients”.

(Community Psychiatric Nurses)

There was also a consciousness of an ever-declining pool of expertise from colleagues with experience of general nursing to draw on. Where previously it was relatively common for nursing staff working within mental health to hold a general nursing qualification, this is now uncommon:

“A couple of staff are maybe dual trained but they’re the ones who are 20 or 30 years in the job, coming up for retirement... I’m Learning Disability trained, we do a lot in relation to specific disorders, beyond that, and the basic physiology thing you do in first year... we don’t do much. They are doing more now, all this clinical skills stuff, it is a help”.

(Staff nurse 7)

“It’s still not enough when you come in and you’re staffing a ward and you’re thinking actually I’m not very sure about this. It’s not enough, I think you need to be more confident coming in that you know your mental health stuff but you also know your physical stuff as well, given the kind of problems that our patients can have... I think mental health’s more holistic and I think we need to reflect that in our training”.

(Community Psychiatric Nurse)

Two staff members expressed particular concerns about what was perceived to be an increasing focus on academia and theory within mental health nursing at the expense of more vocational skills:

“I’ve only been working for four years but I’m almost nostalgic for a time I wasn’t even trained in when it was far more practically based. And I know its tis attempt to make nursing slightly less... vocational and to give it a slightly more academic drive and that’s fine but there was so much of it that I thought I wasn’t even gaining an academic benefit from it. Stuff like learning about research... I was quite invested in that, I thought I’m getting something good from this. But so much of it, I thought ... if I was spending this time learning wound care or learning about the management of bed stores and If I could spin something academic out of that...

I remember we had maybe one or two three hour lectures on medication. And I know a big part of it is we’re not medics but it was almost as though these are the jobs for the medics and I thought “no, you’d like to be able to go in with fairly informed thought.” Because I found plenty of times when I was going into placements and my mentor was saying, “just out of curiosity, what do you think this drug does, what do you think that drug does?” And I hadn’t a clue, and I thought “I’m so grossly underprepared for this.” And it was on the placements where I was learning the vast majority of stuff that actually related to what I was doing and there so many times that I felt embarrassed coming in because I had so little knowledge of what was going on and I hadn’t been directed in that respect. And don’t get me wrong, all of the people that were teaching these things, very well meaning with it... there is room for a lot of academic stuff in it but really you want the actual hands on stuff.”
This sentiment was echoed by another staff nurse who had qualified only recently:

“I think we barely touched on the actual diseases; it was an hour-long lecture on schizophrenia somewhere in second year. You spend so many days learning about recovery or equality and… that’s great because they’re really good values to have, but it’s almost like you never had the values until you were taught them. Most people going in there, that’s common sense. I don’t need to be told a million times. Whereas I would have preferred to learn a bit more about the things I’m going to be treating”.

(Staff nurse 4)

The impact of what were felt to be often inadequate levels of staffing on ability to prioritise physical health needs was expressed by several staff. For example, this sometimes resulted in chaperones being unavailable to accompany inpatients who had been referred for secondary care:

“ Sometimes we can’t have the staff off the ward which means appointments are getting missed that are really important to that patient that they go and get seen at a general hospital. So staffing does come into it”.

(Nursing assistant)

It was also acknowledged that staffing levels had an impact on the capacity to promote physical activity in a patient group who often required high levels of encouragement to remain motivated:

“I think if we were able to take every person out once a shift to do a complete circuit, well maybe that’s a bit ambitious, but to do as much of a walk around as they could. Because you tend to see … people put on a lot of weight on our ward (intensive psychiatric care unit), usually they lose a bit of it out on the open wards because they’re more able to move around… if we had the staff to get people out and about a bit more often it would be great”.

(Staff nurse 8)

However there was also recognition that promoting independence in activities of daily living may be as important in maintaining physical fitness and healthy weight:

“You definitely see weight gain. Because people who have been in hospital an extended amount of time, their physical activity reduces because… the organisation has put things in place, things like the ability to do your washing, because the washing gets taken away from the patients, it gets washed, folded and sent back up”.

(Staff nurse 6)

“I think as well a lot of the small tasks that you do throughout the day, things like going out to the shop and things like doing the washing and creating your own meals – those are small physical activities that you would do during the day and a lot of, to a certain extent, what keeps people healthy is not the big going out for a run or a massive cycle, it’s small amounts
of physical activity throughout the day that keeps you occupied and keeps your mind off things as well”.

(Staff nurse 8)

Smoking is a substantial contributor to inequalities in physical health outcomes in individuals with mental illness yet some staff members showed ambivalence towards smoking cessation as a therapeutic priority, particularly where it was felt that this may impact negatively on relationships with patients. This was particularly felt by a member of staff who worked in IPCU, where it was perceived that greater restrictions on smoking behaviour represented a source of inequality:

“‘It’s so difficult, that kind of authoritarian role that you can have over people. But it’s in their best interests, but it’s still, you’re kind of taking their liberties away from them a wee bit... you’re depriving people of their cigarettes, which is for some people the most important thing in their day if you’ve got not a lot going for yourself and you’ve no reason to get out of bed, sometimes a cigarette’s what’s going to get you out of bed and get you kind of interacting with people’”.

(Staff nurse 4)

“I’m not a smoker myself and never have been but it’s one of the things I totally disagree with, I think its grossly unfair and I can understand the value of it but... that policy almost creates an inequality in our ward... it’s a difficult one as well because that’s a policy that I’m responsible for enforcing but it’s not something I actually believe in myself, personally aspects of it as well I don’t see the harm in people smoking outside and it’s something that people derive enjoyment out of, it’s not one that I’m massively invested in myself”.

(Staff nurse 8)

Generally, communication between mental health services and primary care was viewed positively. Regular access to a general practitioner for a subset of service users was viewed as a valuable service:

“We’re quite lucky in rehab that we’ve got a GP every Wednesday so any issue that comes up either gets seen, if its urgent it gets seen by the duty doctor and if it’s not urgent it gets seen on the Wednesday by the doctor, so if we’ve got anybody that needs stool samples for cancer, if they’re at that age or breast screening as well, they all get done, or we’ll try and get them done when they’re needed. The GP kind of works alongside the consultant to make sure things are getting done, they’ve actually devised a kind of physical health screening tool to make sure you can tick off a box and say well within this year this, this and this has all been looked and then they print out a history of what physical health problems the patent’s had because you know you could look at somebody and they’ve had so many things wrong with them that you can only really think of the top 5 off the top of your head but really there’s a list of about 20 different things’”.

(Staff nurse 4)

Communication between mental health professionals and secondary care was viewed less positively:
I think there are historical tensions over some things but generally liaising between mental health and primary care I think is better... I think the biggest issue for me is joining up aspects of peoples care and I suppose psychiatry we’re a specialty where there’s a lot of scrutiny around our discharge planning... to make sure that follow up on all these things are in place... it doesn’t always feel within the acute sector, within the general medical sector, that’s so much the case and where we wouldn’t get away with not communicating on discharge, it doesn’t always feel like its reciprocated. And I think that’s probably pressures of acute services, but that sense of owning a patient’s care over a long period of time I think sits clearly within mental health services and I think that’s not how we perceive it or we experience it with our patients in the acute sector in general medical clinics. It’s rare that someone would pick up the phone to discuss prescribing for my patients whereas I’m about to start somebody on medication who attends a warfarin clinic and I wouldn’t do that without contacting their cardiologist and the clinic. I think it’s unlikely that it would be the other way round. People will often stop medications that were prescribing without liaising with us”.

(Consultant psychiatrist)

When asked directly what would improve physical health outcomes for service users, the main response was improved staffing levels. One participant voiced the desire for dedicated staff to support the collective actions of the mental health teams, providing a more cohesive approach:

I wonder if there’s something about a cohort of people with designated roles specifically around that to support the rest of us in what we are doing day to day as clinicians. The difficulty I’ve found over the years having an interest in it is having sufficient ring fenced time to get enough momentum behind change. There’s a gym here in the hospital, it’s a physiotherapist who supervises it, whenever they’re short of physiotherapy, for example somebody’s on maternity leave or not well, the first thing that happens is the gyms closed and the patients can’t access it. So were doing all this work around physical activity, the staff here are superb, patients are mobile in a way that they were not ten years ago, they’re all walking the mile, they’re all doing lots but if you’ve got a gym and you can’t use it because one person’s off sick – the knock on effect on patients because they then get out of the routine of going because X you’ll have just got them motivated to go and I’ll be there and then the gyms closed. So its things like that, that if there was someone whose role it was to ensure that it’s all joined up across the piece it would be really helpful.”

(Consultant psychiatrist)
Discussion

The inequality in physical health outcomes in individuals with severe mental illness is now well-documented. Reduced life expectancy in this population cannot be attributed solely to factors directly associated with mental illness such as self-harm and substance misuse; rather, the causes of mortality that are most common in the general population are largely the same as those that affect those with SMI but occur at a younger age. Individuals with SMI are at increased risk from cardiovascular disease and stroke, diabetes, chronic respiratory disease and some cancers. Analysis of the inpatient census data has demonstrated that these findings are true for users of mental health inpatient facilities in NHS Greater Glasgow and Clyde; the relative risk of cardiovascular disease in this population compared to the general population is 1.65, for previous cancer diagnosis it is 1.91, for diabetes it is 2.05 and for COPD higher still at 3.63. This is echoed in figures for service users in Scotland as a whole. Prevalence of epilepsy, Parkinson’s Disease, thyroid disease and liver disease are also higher, in spite of an age profile that is not dissimilar to the general population.

The underlying causes of increased morbidity and mortality in individuals with SMI are complex. They include factors related directly to treatment, including use of atypical antipsychotics that promote weight gain and contribute to metabolic abnormalities, but also factors that are indirectly related to underlying illness. These include physical inactivity, which may be related to sedation or low motivation, and increased frequency of substance misuse, which for some individuals may be a mode of self-medicating in response to distressing symptoms. Interestingly, the proportion of individuals who were overweight or obese was considerably lower compared to the Scottish population. This reflects the high numbers of individuals in the general population who are overweight or obese but also the skewed nature of weight distribution in the inpatient population, with several patients having very low BMIs of less than 18. The greatest number of obese patients was in the acute wards, but other than this prevalence was highest in areas with greatest restriction of activity, i.e. forensic wards.

Inpatients in NHS GG&C were 1.79 times more likely to be current smokers than in the general population; this represents a substantial risk factor for development of long term sequelae.

Data on previous alcohol and substance misuse was collected only for the 4 weeks prior to admission and may be less reliable for patients who have been in hospital for long periods of time; alcohol use was lower than in the general population although substance misuse was 3 times higher.

Growing evidence of inequities of outcome has ensured that the physical health of users of mental health services has become a strategic priority for those involved in planning services and in training staff working within them. There is a strong commitment within NHS GG&C to ensuring that the physical health needs of service users are held in high esteem, as evidenced by range of initiatives currently in place. This includes working groups such as the physical health implementation group and primary care/mental health interface group that meet regularly to discuss development and areas for improvement. Practice development nurses work alongside ward staff to help implement recommended changes in how care is delivered and oversee a rolling audit calendar that incorporates many aspects of physical health care including completion of physical assessments. A new physical healthcare training coordinator role will help in the development of a comprehensive training package for staff. The physical healthcare policy provides an overarching reference document designed to provide recommendations for best practice in all aspects of physical health care.

Attitudes to physical healthcare

The commitment to prioritising physical healthcare within NHS GG&C has helped to create an environment where holistic care and pursuit of optimum mental and physical health and wellbeing is viewed as a shared objective. Overall, nursing staff demonstrated high levels of commitment and motivation to involvement in improving physical health outcomes in their patients. Over 85% of staff
responding to the staff survey described regular discussions with patients about the benefits of physical activity and healthy diet and reported feeling confident in doing so. Substance misuse and smoking cessation were discussed less frequently and only a minority of nursing staff reported ever discussing sexual health or contraception.

Positive experiences were also described in relation to availability and willingness of medical staff to assess and manage patients when required. Accessing medical input when required was not identified as particularly problematic by survey respondents and focus group participants reported that medical staff in turn seek advice from secondary care colleagues in a timely and efficient manner when necessary. If anything, criticism of medical staff was in relation to being overly risk averse. This was noted particularly in relation to piloting of a Medical Early Warning System (MEWS) score, designed to detect patients whose physical condition is deteriorating and who may require transfer for medical management. Some staff felt that medics sometimes failed to look at the whole patient and organised hospital transfer for chronic abnormalities that were not indicative of an acute clinical problem. Similarly, some transfers for observation after falls where there was a risk that patients had sustained a head injury were deemed unnecessary. This is not a straightforward issue to address, as although decisions must be undertaken with an awareness of limited resources and avoidance of unnecessary interventions that may not be in a patient’s best interest, there are obvious challenges for junior medical staff in decision-making in an environment with limited diagnostic facilities and in the absence of support from a team of experienced clinical colleagues. A particular concern was noted over a lack of protocols in place for patients whose scores place them somewhere in the spectrum between ‘normal’ and requiring transfer to medical facility, with a need for clearer direction on how these patients should be managed. There is also a need to monitor unintended effects, for example, numbers of patients transferred to hospital who do not require admission.

Similarly, the apparent diminishing capacity of medical staff in being able to perform minor procedures, such as suturing, was a source of frustration, with the sense that often patients are transferred for care that would previously have been carried out ‘in-house’. Again, while this is understandable, it would also be inappropriate for staff to attempt procedures in which they have insufficient experience. There may be some benefit in providing clarification in what procedures junior medical staff can be expected to perform in order to improve communication and reduce uncertainty for both nursing and medical staff.

Recommendations

- There is a need for clarity regarding requirement for transfer to hospital following falls and minor injuries

Training - Undergraduate

Clear concerns were expressed about the adequacy of current mental health nursing undergraduate training as preparation for managing physical health. This seemed to be most apparent among members of staff who had qualified more recently. The relatively minimal physical health component of mental health nursing undergraduate curriculum was consistently identified as a concern. In particular, understanding the ‘basics’ of nursing care, e.g. hygiene, assessing tissue fluid
balance, oral care etc. was felt to be incomplete, as was being able to write a comprehensive care plan, which is an essential component of continuity of care.

It is likely that this reflects both changes in emphasis of the undergraduate curriculum, but also a changing workforce. There is a diminishing pool of nursing staff qualified in both mental and physical healthcare, and this means less experience to draw on within nursing teams in the ward environment. In particular, staff reported feeling under-equipped to manage care associated with chronic conditions. For instance, there was felt to be a need regarding capacity to manage wounds and chronic conditions associated with compromised skin integrity, such as leg ulcers. This was compounded by a feeling that assumptions were made within secondary care that all inpatient facilities are equipped to manage such conditions.

At present, there is no clear method of feedback regarding content of the training curriculum. Practice education facilitators receive feedback from mentors but address issues on an individual student basis, only intervening when specific concerns are identified. There is no defined process for frontline staff involved in supervision and mentoring to offer feedback on the training structure as a whole in response to identification of unmet needs.

It is possible that some of the skills that have been identified as areas for improvement, such as the importance of completing and maintaining comprehensive care plans, could be incorporated into an induction programme for new staff. At present, this is done on an individual ward basis but there may be merit in increasing the uniformity of this process. One difficulty that has been identified in familiarising new staff with ward processes is the vast range of documentation that staff are required to use, for example assessments to be completed on admission, referral forms clinical investigations etc. Within NHS GG&C this was found to be in excess of 300, often with several versions of a form available for the same purpose. Simplification and de-duplication is likely to reduce confusion and increase compliance in completing assessments.

**Recommendations**

- Appropriate pathways should be developed for staff and students to provide feedback to educational institutions regarding gaps in the current mental health nursing training curriculum
- Practical steps to address gaps in training should be prioritised and implemented as soon as is reasonably possible
- Paperwork should be rationalised across NHS GG&C in order to enhance compliance in completing necessary assessments and referrals

**Training – Postgraduate**

With regards to content of postgraduate training, there was a sense that the term ‘physical healthcare’ means different things to different people and that defining its components for the purposes of training may help staff to better identify their own unmet needs. For example, physical healthcare comprises a spectrum from very practical aspects of nursing care (such as monitoring of vital signs, blood pressure measurement and wound care) to preventative approaches.
One way of increasing access to the range of training that can be delivered may be expansion of the ‘named link nurse’ role that has been developed within the diabetes managed clinical network. The link nurse role provides a valuable channel of two way communication between specialist teams and frontline staff and can help support the implementation of changes in recommendations for best practice. A similar role may be helpful to improve exposure of nursing staff to sexual and reproductive health and cancer screening, both training priorities identified by the staff survey. It should be recognised that there is a distinction in training staff for roles that they are likely to require to carry out as part of their core duties – for example, blood pressure measurement, identification of the acutely unwell patient, recognition of common medication side effects – and areas that may not a regular part of their role but where they have opportunities to facilitate discussion and signpost to relevant services. Training should be designed to reflect this; for example the aim of a workshop on sexual and reproductive health would not be to equip staff to diagnose sexually transmitted infections/sexual dysfunction or prescribe contraception but to promote awareness of common symptoms and the range of contraception available that may enable them to open up discussion with service users about these important issues. It must also be recognised that training must have capacity for flexibility to deliver training on those priorities identified at strategic level – e.g. addressing risk factors for cardio metabolic disease - but also to be responsive to needs identified at ward level and be capable of delivering reactive ‘on the spot training’ that can be delivered with minimal planning.

**Recommendations**

- The language used around ‘physical health care’ should be defined with greater clarity to enable staff to identify their own training needs
- Specific training events should be developed around sexual health and contraception and cancer screening
- Expanding the ‘named link nurse’ model that has been developed for diabetes care may help to facilitate this
- There must be capacity within the structure of postgraduate training to respond to unanticipated needs as they arise

**Medication**

A further area identified as lacking within the nursing undergraduate curriculum was pharmacology training. This is concerning when neuroleptic medication is so clearly identified as a risk factor for development of physical morbidity. Staff report feeling underequipped to discuss which side effects are most common, and service users and carers report feeling overwhelmed when presented with long lists of potential side-effects in the information sheets supplied with medication. There was also some evidence that potentially serious side effects can be underplayed, with one carer reporting a dismissive attitude when asking for concerns regarding her son’s chronic constipation to be addressed. This is of concern when clozapine-induced constipation is now recognised as a potentially fatal complication of treatment that is more common than the more recognised agranulocytosis (19, 21). A resource to assist with raising awareness about the most common side effects of clozapine has been developed by pharmacy services at NHS GG&C, designed in the format of a reference card containing a series of short questions (e.g. Do you know clozapine can cause...
constipation? Do you know why you need regular blood tests?). These have been met with a positive response from staff. Development of similar resources for the most commonly prescribed medications in the local formulary may represent a cost-effective way to facilitate these aims.

Recommendations

- There is a need to support staff in facilitating discussions with service users and carers about common side effects of psychotropic medications
- Alongside targeted training, expansion of the clozapine reference card to incorporate other medications represents a sustainable way to help achieve this

Physical activity

Promoting physical activity is a challenge for many individuals with severe mental illness (SMI) who may experience sedative side effects from antipsychotic medication and/or low motivation as a consequence of illness itself. In addition, inactivity may result from reduced capacity for social interaction related to anxiety symptoms. For service users who are inpatients there are added challenges associated with both restricted space and lack of availability of staff to accompany them during walks or organised activity. Staff reported fluctuations in weight that were apparent as patients moved between wards with different levels of security. This was demonstrated by the relatively high proportion of patients who were obese in the forensic wards relative to other specialties; this patient group also had the highest prevalence of diabetes.

Many of the activities used to promote physical activity are restricted by availability of staff; in particular, staff reported frustration at the fact that gyms could only be utilised by patients under trained supervision and that this activity was first to stop when staffing levels are reduced. Staff also reported that some patients required one to one interaction to help motivate them to be physically active but that this was not always possible. Although interaction with others is an important aspect of the wellbeing that results from being more physically active, it may be possible to identify ways of providing motivation that are less reliant on availability of staff. This may include greater emphasis on team games, which maximise capacity for involvement and may also reduce isolation. Activity trackers may also be a way to improve motivation for physical activity; a small pilot study carried out in NHS GG&C explored the impact of pedometers on physical activity levels on staff and inpatients over a two week period and found that pedometer use was associated with a statistically significant increase in number of steps taken. This increase was most pronounced in patients with greatest restrictions in movement, i.e. with no ‘passes’ outside the facility, indicating that this may be the group who would benefit most from additional incentives to increase activity levels (22).

It must also be recognised that enabling patients to retain capacity for performing activities of daily living is important not only for rehabilitating patients in preparation for independent living but also in ensuring that there is adequate energy expenditure to maintain healthy weight; this concern was voiced by focus group participants, particularly for patients with longer hospital stays. Some restrictions are necessary to comply with health and safety policies, for example infection control policy precludes patients from carrying out their own laundry, however, where possible patients should be encouraged to participate in these routine tasks and activity programmes should therefore focus not only on sporting and fitness activities but on increasing activity in any capacity.
Recommendations

- Interventions designed to increase physical activity must be achievable with regards to availability of staff
- Emphasis on team activities where possible may help to maximise capacity for participation and reduce isolation
- Use of digital activity trackers may represent a feasible way of increasing motivation for physical activity
- The contribution of completing small tasks of everyday living in maintaining overall activity levels should not be underestimated and helping patients to maintain independence in these should be a priority
- Areas where service users have greatest restriction of movement (i.e. forensic wards and IPCU) should be identified as priorities for interventions to increase physical activity

Smoking

Increased prevalence of smoking in individuals with SMI is inarguably a substantial factor in producing inequalities in health outcomes. Mental health facilities are exempt from the smoke free legislation passed in Scotland in 2006, with individual boards having discretion to allow smoking in designated indoor areas if they see fit. The Mental Welfare Commission has noted wide variation in practice in how such guidance is implemented (23). In addition to the clear benefits in physical health outcomes following smoking cessation, a recent systematic review and meta-analysis concluded that it is also associated with improved mental health outcomes including reduction in depressive symptoms and anxiety and improved quality of life(24).

Analysis of inpatient census data demonstrated that a diagnosis of COPD was most common in continuing care/long stay wards at 14.4%. Prevalence of smoking was highest in the forensic wards at nearly 93%, followed by IPCU at nearly 74%. Interestingly, no patients in IPCU had a diagnosis of COPD and prevalence was 7% in Forensic. Lower prevalence of smoking in these wards compared to continuing care is likely to reflect the relatively younger age of this patient group, while the higher prevalence of COPD in continuing care areas demonstrates the chronic respiratory effects of tobacco use and strengthens the case for championing smoking cessation in clinical areas of highest prevalence.

Some staff reported a degree of ambivalence regarding smoking and objected to aggressive promotion of smoking cessation, feeling that this further infringed on already restricted choices. However the clear inequalities in physical health outcomes are a mandate to continue to pursue reduction in smoking behaviour as a priority for action in this patient group. It may be of value to provide a specific staff communication regarding the prevalence of smoking and related health effects in order to re-energise motivation in addressing this important risk factor. There is already a recommendation that all patients undergo a nicotine needs assessment on admission, including enquiry about need for nicotine replacement therapy. E cigarettes are also now permitted on hospital grounds and patients should be encouraged to considering switching. Although exposure to second hand smoke remains a concern, using a replacement device does allow patients to maintain the social interaction associated with outside smoking areas that they may value.
However; substitution of tobacco should not be the sole aim of a smoking cessation strategy. The Mental Welfare Commission notes that ‘There is often a lack of provision of therapeutic activities available to patients in mental health wards/units’ and that ‘a lack of diversionary activities can increase the amount of cigarettes that people smoke’[23]. As mentioned in the previous section, improving the range of ‘ordinary’ everyday activities that patients are able to be involved in is essential for promoting positive outcomes in all aspects of health and wellbeing.

**Recommendations**

- The inequalities in health outcomes that result from increased smoking behaviour are clearly apparent within the inpatient census data and should be used to highlight the importance of reduction in smoking as a priority for action
- E-cigarettes represent an important tool for harm reduction and should be introduced as an alternative to cigarettes as part of the nicotine needs assessment at admission
- Smoking cessation strategies should aim to replace smoking behaviour with activities that increase social interaction

**Interface with primary care**

Experience of interactions between mental health staff and primary care was generally positive, particularly in relation to weekly attendance by a general practitioner to long stay wards which helps overcome potential inequalities in access. There are no similar arrangements in other ward types however neither service users nor staff reported that access to primary care was problematic. There may however be a role for increased interactions between general practice and mental health services in facilitating shared learning, and this is likely to be bi-directional. While co-location of services is not a realistic goal in the near future, it is possible that a model that promotes greater face to face interaction between primary care and mental health services would result in the beneficial ‘hallway interactions’ described in the literature review (9). In particular, service users describe occasional reluctance on the part of general practitioners to consider commencing new medications due to concerns about potential interactions with psychotropic medication that may have a destabilising effect on the patient’s mental health condition and this has the potential for marked reduction in quality of life. Increased interaction between general practitioners and psychiatrists or pharmacists in the form of ‘ward round’ type environments may help to increase familiarity with commonly used psychotropic drugs and reduce anxiety about potential effects of co-prescribing. Similarly, greater familiarity with common complaints seen in primary care (e.g. skin conditions) may help to increase the pool of experience available at ward level and reduce unnecessary referrals and transfers.

**Recommendations**

- Greater interaction between primary care and mental health staff are likely to have mutually beneficial effects on knowledge level and quality of patient care.
- It would be beneficial to support primary care staff in increasing their knowledge of side effects and interactions of the most commonly used psychotropic drugs
**Interface with secondary care**

Communication pathways between mental health services and secondary care are identified as a key area for improvement. A frequent concern was patients being discharged from medical facilities either before their condition has been adequately resolved or stabilised, or with an inadequate care plan. It was reported that this was associated with frequent readmissions. The number of patients who are readmitted to medical facilities following discharge back to mental health units is unknown and this merits further exploration via use of linked data. This would allow to identification of patients who are admitted for acute medical care from mental health facilities who are subsequently readmitted within a defined period (e.g. 14 days). A case note review would then allow identification of underlying reasons and assessment made of whether readmission was necessary or could have been avoided, through a combination of improved communication re ongoing requirements for physical care and/or improved clinical support for mental health staff.

There were mixed reports on access to secondary care in terms of availability of staff to accompany patients, with some focus group members and survey respondents identifying lack of staffing to capacity as a recurrent problem but others experiencing this rarely or never. It is recommended that when this does occur it should be recorded on an Incident Reporting Form in order to properly assess whether this is an area requiring action.

**Recommendations**

- Further research is required regarding the number of patients who are discharged back to mental health facilities from medical facilities who then require readmission, and the underlying reasons
- There is a need for clarity regarding the capacity of staff within mental health facilities to provide care for chronic clinical conditions (e.g. wound care)
- Cancellation or postponement of attendance at scheduled outpatient appointments as a result of staffing levels should be recorded as a clinical incident

**Improved data use**

The inpatient census is now in its third year; with physical comorbidities recorded in its current format only commenced in 2016 at present this data is only available for one year. Comparison with subsequent years data will allow identification of trends and increase validity of conclusions drawn. This will enable identification of which patients consistently experience highest levels of morbidity and allow staff training to be directed accordingly. It will also enable identification of those areas where interventions such as smoking cessation and weight reduction will be of highest value. Creating a bespoke request for this data to be extracted routinely will allow timely communication of findings that will help to inform practice, and also to identify areas where improvements in health outcomes have occurred.
Recommendations

- A bespoke request for a report on physical comorbidities recorded during the inpatient census should be created in order to allow identification of trends that will help direct priority areas for staff training and patient groups for health interventions
References from literature review


Clyde, N. G. G. a. Mental Health Services Physical Healthcare Policy.


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- Drs Catherine Chiang and Moira Connolly for overall supervision and guidance throughout this project
- Annie Ruddy for providing insight into how training for staff working within mental health services is being developed
- Diane Young and Frank McGuigan for their valuable insight into the challenges of changing practice within mental health services
- Carol Donoghue, Maureen Gordon and David Wright for assistance in setting up focus groups with service users and staff
- Stephen McGinness, Julie McKelvie and Professor Chris Williams for their guidance in developing the staff web survey
- Frances Paton and Ellen Lynch for assistance in accessing the Inpatient Learning Disability and Mental Health Census data
Appendix 1 Grading of evidence of studies identified in literature review

Quality of evidence was graded according to the NICE hierarchy of evidence (4). Results are presented below. It is acknowledged that the evidence that is central to public health interventions (including those to reduce health inequalities) differs from other specialties, for example it would be unexpected to find many randomised controlled trials of public health interventions due to methodological and ethical limitations. Nonetheless, it remains useful to evaluate the quality of studies that are available according to a standard framework in order to identify gaps in the existing evidence. Some amendments to the standard grading has been made to reflect the differences in public health research; systematic reviews have been added to grade I and non-systematic review articles to grade IV. For consistency, qualitative studies have been added to grade III but it is acknowledged that: a) there are broad areas of public health research where no other methodology is suitable to answer the research question and b) within qualitative research there is wide variation in standards.

It is noted that some authors feature frequently in the search results. For example, of the 13 relevant articles identified in Theme 2, nine have Happell as the lead or co-author. The availability of such a wealth of literature by experienced research teams is highly valued; however it must be acknowledged that domination by one author may limit generalisability of findings to other settings.

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of evidence</th>
<th>Theme 1</th>
<th>Theme 2</th>
<th>Theme 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Evidence obtained from a single randomised controlled trial or a meta-analysis of randomised controlled trials including systematic reviews</td>
<td></td>
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<td>++</td>
</tr>
<tr>
<td>IIa</td>
<td>Evidence obtained from at least one well-designed controlled study without randomisation</td>
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<td>+</td>
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<tr>
<td>IIb</td>
<td>Evidence obtained from at least one other well-designed quasi-experimental study</td>
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<td>+</td>
</tr>
<tr>
<td>III</td>
<td>Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation</td>
<td>++++++++ +</td>
<td>+++++ +</td>
<td>+++++</td>
</tr>
<tr>
<td>IV</td>
<td>Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities (including editorials and non-systematic review articles)</td>
<td>++ + + + + + +</td>
<td>+++</td>
<td>+++</td>
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### Appendix 2 Data table for comorbidities in inpatient populations in NHS GG&C and inpatient and general populations in Scotland

<table>
<thead>
<tr>
<th>Condition</th>
<th>Inpatient population NHS GG&amp;C</th>
<th>Inpatient population Scotland</th>
<th>General population Scotland (&gt; 16) – Data source in brackets</th>
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</thead>
<tbody>
<tr>
<td>Long term condition</td>
<td>53.8</td>
<td>53</td>
<td>39 (25)</td>
</tr>
<tr>
<td>Coronary Heart Disease</td>
<td>9.9</td>
<td>9</td>
<td>6 (25)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>13.8</td>
<td>16</td>
<td>29 (25)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>12.3</td>
<td>12</td>
<td>6 (25)</td>
</tr>
<tr>
<td>Stroke/TIA</td>
<td>4.3</td>
<td>5</td>
<td>3 (25)</td>
</tr>
<tr>
<td>Chronic Pain</td>
<td>10.4</td>
<td>10</td>
<td>18 (26)</td>
</tr>
<tr>
<td>COPD</td>
<td>6.9</td>
<td>6</td>
<td>1.9 (27)</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>4.7</td>
<td>5</td>
<td>0.8 (28)</td>
</tr>
<tr>
<td>Dyslipidaemia</td>
<td>8.4</td>
<td>20</td>
<td>56 (29)</td>
</tr>
<tr>
<td>Parkinson’s</td>
<td>0.9</td>
<td>1</td>
<td>0.23 (30)</td>
</tr>
<tr>
<td>Thyroid disorder</td>
<td>5.7</td>
<td>6</td>
<td>3.8 (31)</td>
</tr>
<tr>
<td>Chronic Kidney Disease</td>
<td>3.5</td>
<td>4</td>
<td>3.16 (32)</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>2.4</td>
<td>2</td>
<td>1.93 (33)</td>
</tr>
<tr>
<td>Previous cancer diagnosis</td>
<td>4.6</td>
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<td>3.05 (34)</td>
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<tr>
<td>Smoker current</td>
<td>37.7</td>
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<td>21 (25)</td>
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<tr>
<td>Overweight</td>
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<td>36 (25)</td>
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<tr>
<td>Obese</td>
<td>16.3</td>
<td>26</td>
<td>29 (25)</td>
</tr>
<tr>
<td>Alcohol misuse (hazardous or harmful drinking in previous)</td>
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<td>26 (25)</td>
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<tr>
<td>Other substance misuse</td>
<td>18.3</td>
<td>17</td>
<td>6 (35)</td>
</tr>
</tbody>
</table>
Appendix 3 Staff survey template

Improving the physical health outcomes of service users

First, please tell us some background information about you and your job

1. Gender
   ○ Male
   ○ Female

2. Age
   ○ 16-25
   ○ 26-35
   ○ 36-45
   ○ 46-55
   ○ 56-65
   ○ 66 or older

3. Please enter the year in which you completed registration as a Mental Health nurse.
   ____________________________________________________________
   4 characters remaining

4. In which of the following service settings do you usually work?
   ○ Inpatient-based
   ○ Community-based
   ○ Inpatient and community-based
   ○ Other (please specify)
   ____________________________________________________________
5. Within which specialty do you work most often?
   ○ General adult
   ○ Older adult
   ○ Child and adolescent
   ○ Learning disability
   ○ Addiction
   ○ Forensic
   ○ Community
   *Other (please specify)
   ○

6. Please select the banding of the position that you currently hold within Mental Health services
   ○ 1
   ○ 2
   ○ 3
   ○ 4
   ○ 5
   ○ 6
   ○ 7
   ○ 8

7. Please list any training in physical healthcare that you have undertaken in the past 5 years (e.g. Basic Life Support, online training modules etc.) with approximate date (i.e. year)
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

Please tell us about your knowledge and skills in the following areas

Please answer in relation to how often you perform these activities with ANY of your patients
### 8. Healthy diet

I regularly (e.g. once a month or more) discuss maintaining a healthy diet with patients  
I feel confident in providing patients with advice on maintaining a healthy diet  
I know how to refer patients for specialist dietary advice when required

### 9. Physical activity

I regularly (e.g. once a month or more) discuss the benefits of physical activity with patients  
I feel confident in providing patients with advice on physical activity  
I know how to refer patients for specialist advice on physical activity when required

### 10. Smoking cessation

I regularly (e.g. once a month or more) discuss smoking cessation with patients  
I feel confident in providing advice on smoking cessation  
I know how to refer patients to smoking cessation services if required

### 11. Alcohol-related harm

I regularly (e.g. once a month or more) discuss alcohol-related harm with patients  
I feel confident in providing patients with advice about alcohol-related harm  
I know how to refer patients for specialist advice on alcohol-related harm when required

### 12. Recreational drug use

Yes No
I regularly (e.g. once a month or more) discuss recreational drug-related harm with patients
I feel confident in providing advice regarding recreational drug use
I know how to refer patients for specialist advice about recreational drug use if required

13. Side-effects of prescribed medication

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have adequate knowledge about the common side effects of prescribed psychotropic medication</td>
<td></td>
</tr>
<tr>
<td>I regularly (e.g. once a month or more) discuss side effects of prescribed medication with patients</td>
<td></td>
</tr>
<tr>
<td>I feel confident about providing advice about side effects of prescribed medication</td>
<td></td>
</tr>
</tbody>
</table>

14. Sexual health

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I regularly discuss sexual health with patients</td>
<td></td>
</tr>
<tr>
<td>I feel confident in providing advice about sexual health</td>
<td></td>
</tr>
<tr>
<td>I know how to refer patients for specialist advice on sexual health if required</td>
<td></td>
</tr>
</tbody>
</table>

15. Contraception

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I regularly discuss contraception with patients</td>
<td></td>
</tr>
<tr>
<td>I feel confident in providing advice about contraception</td>
<td></td>
</tr>
<tr>
<td>I know how to refer patients for specialist contraception advice if required</td>
<td></td>
</tr>
</tbody>
</table>

16. Cancer screening

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know which patient groups are eligible for national screening programmes (e.g. cervical, breast, colorectal)</td>
<td></td>
</tr>
<tr>
<td>I regularly discuss the importance of cancer screening with patients</td>
<td></td>
</tr>
<tr>
<td>I feel confident in discussing uptake of screening with patients</td>
<td></td>
</tr>
</tbody>
</table>
I know how to advise patients in performing self-breast examination

I know how to advise patients in performing self-testicular examination

17. Blood pressure monitoring

I regularly (e.g. once a month or more) perform measurement of blood pressure

I feel confident in performing blood pressure measurement

I feel that I can recognise abnormalities in blood pressure

I feel clear on what to do when abnormalities in blood pressure are detected

18. Blood glucose monitoring

I regularly (e.g. once a month or more) perform measurement of blood glucose levels

I feel confident in performing measurement of blood glucose levels

I know how to recognise abnormalities in blood glucose levels

I feel clear what to do when abnormalities in blood glucose levels are detected

Tell us about some of the barriers that you may face in meeting physical health needs of patients

Please use the scale provided to indicate which of the following statements you agree with most:

19. Physical examination of patients

1 2 3 4 5 6 7 8 9 10

It is difficult to access an appropriate place to perform a physical examination when required

It is difficult to access necessary equipment to perform physical examinations (e.g. blood pressure cuff, blood glucose monitor)

It is difficult to find available staff to chaperone when physical examination is required

It is easy to access an appropriate place to perform a physical examination when required

I have adequate access to necessary equipment to perform physical examinations (e.g. blood pressure cuff, blood glucose monitor)

Staff are always available when required to chaperone during physical examinations

20. Organising outpatient visits
I am unsure how to organise referrals for specialist care when required (e.g. to hospital outpatient clinics)

It is difficult to organise transport for patients attending outpatient appointments

It is difficult to organise chaperones for patients attending outpatient appointments

---

I know how to organise referrals for specialist care when required (e.g. to hospital outpatient clinics)

It is easy to organise transport for patients attending outpatient appointments

It is easy to organise chaperones for patients attending outpatient appointments

---

It is difficult to organise transport for patients attending outpatient appointments

It is easy to organise transport for patients attending outpatient appointments

---

It is difficult to organise chaperones for patients attending outpatient appointments

It is easy to organise chaperones for patients attending outpatient appointments

---

21. Support from colleagues

There are insufficient skills within my team of nursing colleagues to enable us to meet the physical health care needs of our patients

It is difficult to access medical staff when support is required in meeting physical health needs

Addressing the physical health needs of patients is not viewed as a priority by senior colleagues (including medical staff)

I feel unclear about my role in meeting the physical health needs of patients

---

There is a sufficient mix of skills within my team of nursing colleagues to allow me to meet physical health care needs of our patients

Medical staff are readily available when support is required in meeting physical health needs

Addressing the physical health needs of patients is viewed as a priority by senior colleagues (including medical staff)

I feel clear about my role in meeting the physical health needs of patients

---

22. Ensuring good patient care and safety

My workload impacts on my ability to keep up to date with guidance on physical health care

I feel that addressing the physical health needs of patients may have a negative impact on other aspects of patient care

I feel concerned about being involved in delivering physical health care in case I make a mistake

I feel concerned that addressing physical health care needs (e.g. providing advice about weight loss or smoking) might have a negative impact on my relationship with patients

---

My workload does not impact on my ability to keep up to date with guidance on physical health care

I do not feel that addressing the physical health needs of patients will have a negative impact on other aspects of patient care

I do not feel that concern about making a mistake affects my attitude to delivering physical health care

I do not feel concerned that addressing physical health care needs (e.g. providing advice about weight loss or smoking) will have a negative impact on my relationship with patients

Now please tell us about the areas in which you would most value further training

23. Please rank the following areas for further training in order of preference (1 = most preferred, 10 = least preferred)

Healthy diet

Physical activity
Smoking cessation
Alcohol-related harm
Recreational drug use
Side effects of prescribed medication
Blood glucose monitoring
Blood pressure monitoring
Sexual health and Contraception
Cancer screening

24. Are there any other issues related to meeting the physical health needs of service users that you think are important?
________________________________________________________________
________________________________________________________________
________________________________________________________________

25. Finally, what one change would you make in order to improve physical health outcomes for service users?
________________________________________________________________
________________________________________________________________
________________________________________________________________
Appendix 4

Topic guide for Focus Groups

Causes identified in lit review:

Illness related factors

Medication – atypical antipsychotics and obesity/type 2 DM, sedation
Support networks and cues to action
Smoking and alcohol
Income and diet, access to shops

Service related factors

Separate location of services – issue for inpatients
Accessing services – sedation, travel, set up of waiting room, anxiety over diagnosis
Diagnostic overshadowing
Health literacy
Confusion over roles and responsibilities and f/u arrangements

Staff factors

No general nursing experience
Distinction between operational and interpretive skills e.g. blood sample, bp, urinalysis
Impact on relationship with patients e.g. dietary advice
Support from senior colleagues/management - ? viewed as worthwhile or detracting from main responsibilities
Conflicting priorities – harm reduction and suicide prevention
Resources – understaffing, time for training
Clarity of roles and responsibilities
Clarity of referral pathways
Anxiety over potential for performing role without adequate training – who takes responsibility if errors occur?
References

2. Clyde NGGa. Mental Health Services Physical Healthcare Policy.
17. Pearsall R MG, Hughes KA, Boyle JG, Park J, Connolly M, Mackay D, Smith DJ. Comprehensive linkage of routine clinical data to investigate cardiometabolic disease and adverse health outcomes in 8,000 individuals with serious mental illness. 2017.